

W.C.R.L.

4 SEP 1956

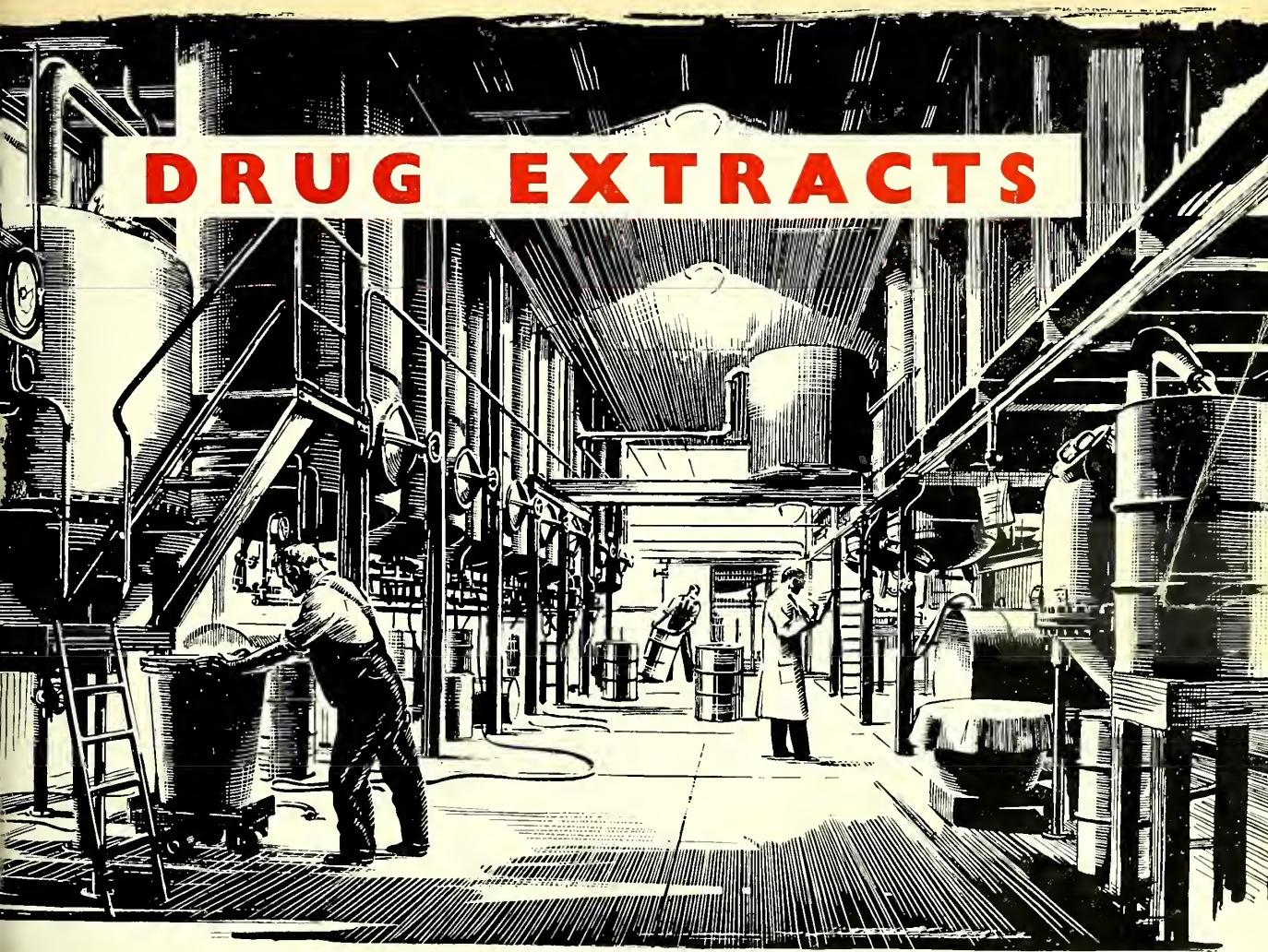
The



CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

SEPTEMBER 15 1956



DRUG EXTRACTS

StaffordAllenS offer the longest experience in the preparation of fine medicinal extracts. Our high vacuum concentration process ensures full therapeutic activity. We manufacture liquid, granulated, powdered and sterilized extracts; also concentrated extracts for the preparation of tinctures, infusions, liquid extracts, confections, etc., etc.

May we quote you for your requirements?

AFFORD ALLEN & SONS LIMITED

ROAD, LONDON, N.1.

Telephone : CLERkenwell 1000



StaffordAllenS

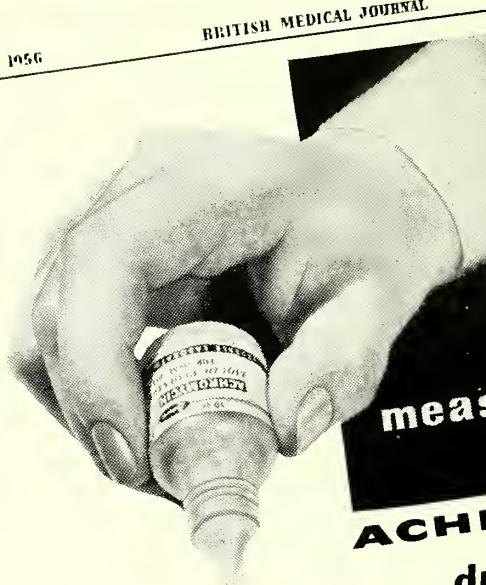
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Lederle is saying

ADVERTISING

AUG 1956

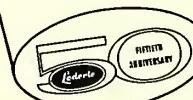
BRITISH MEDICAL JOURNAL



A measured dose
of
ACHROMYCIN[®]
TETRACYCLINE
drop by drop

Administration of small doses of ACHROMYCIN tetracycline is considerably simplified by the introduction of a new improved presentation of the antibiotic—ACHROMYCIN Liquid Pediatric Drops, which is issued in a small pliable plastic bottle with dropper nozzle. The bottle is designed to deliver 5 mg. of ACHROMYCIN in each drop. ACHROMYCIN Liquid Pediatric Drops is a pleasant cherry-flavoured preparation intended particularly for infants and children where palatability is a factor. The dose from the dropper bottle can be conveniently added to milk, water or fruit juices.

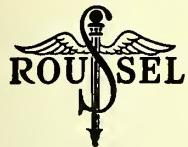
ACHROMYCIN[®] LIQUID PEDIATRIC
TETRACYCLINE



LEDERLE LABORATORIES DIVISION
Cyanamid PRODUCTS LTD. LONDON, W.C.2.



Lederle products are consistently being promoted to doctors in medical journals throughout the world. The above advertisement is currently appearing in leading British medical journals. Literature on the products referred to is available to pharmacists on request.



NO	SYSTEMIC EFFECTS —from the hormone
NO	LOCAL SIDE-EFFECTS —burning, stinging or irritation
NO	SENSITISATION
NO	CONTRA-INDICATIONS

HYDROCORTISYL

WATER-SOLUBLE HYDROCORTISONE
SKIN LOTION AND SKIN OINTMENT

Relieves **PRURITUS**
 in a few minutes

Reduces **ERYTHEMA**
 in a few hours

Dries **WEEPING**
 in a few days

Perfect tolerance

Rapid effect due to
the hormone being in true
solution

Makes the skin smooth,
soft and supple

For example, as in:

Infantile and allergic Eczemas
Contact dermatitis and Chronic dermatitis

Plastic bottles of 20 ml. lotion $\frac{1}{2}\%$ and 1%
Tubes of 5 G. and 15 G. ointment $\frac{1}{2}\%$, 1% and 2.5%



"In these days of economy in prescribing"

Extract from a letter in the BRITISH MEDICAL JOURNAL, August 11th, 1956. p. 374

"A recent annotation in the Journal, on the treatment of constipation, incriminates liquid paraffin as a cause of lipid pneumonia and as an obstacle to the absorption of fat-soluble substances such as carotene and to the healing of wounds. In these days of economy in prescribing . . . the biologically standardized form of senna . . . is cheaper by half than paraffin, is far easier to dispense, and there is no wastage of storage space."*

*Senokot.

Rx
Senokot

THE FIRST STABLE
STANDARDIZED SENNA

Prescribed under the N.H.S.:

J.C.P. Category 3: no B.P. equivalent;
not advertised to the public.

Granules: 1-2 teaspoonfuls. Tablets: 2-4
GRANULES: 2 oz., 6 oz. and 2 lb. TABLETS: 50, 200 and 1,000

WESTMINSTER LABORATORIES LTD., CHALCOT ROAD, LONDON, N.W.1



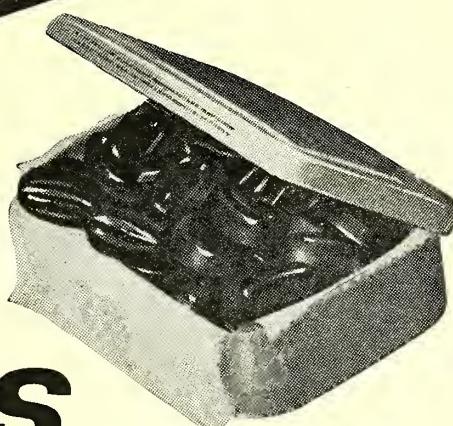
ONE OF THE BEST KNOWN



Throat Pastilles

IN THE WORLD

Your customers know and value EVANS THROAT PASTILLES—one of the best known throat pastilles in the world. A regular display will increase your sales. Special terms available this month—ask our representative for details.



EVANS

Throat Pastilles

Retail 1/11 per tin

Wholesale 13/- per dozen

(plus 30% p.t.)



PATA



EVANS MEDICAL SUPPLIES LIMITED

LIVERPOOL · LONDON · NEWCASTLE · SWANSEA

Agents in Glasgow: The New Apothecaries Co. Ltd.

620

A GRAMMAR SCHOOL SCHOLARSHIP

for the professional man's child

Why burden yourself with expensive school fees when there is excellent free education? Teachers and psychologists have helped us prepare the perfect parent-child course, an easy method of coaching your child to the standard required for one of the coveted free places. Our course explains and helps you do the marking so keeping the cost down. Our standard (9-11 years) complete course at 3 gns. is actually the lowest-priced available, and also the only scholarship course with a MONEY-REFUND GUARANTEE. Courses also available for 5 to 11 years.

Coach with confidence yourself using the
COMMON ENTRANCE HOME TUTOR
 (Dept. C.D.) 80 Wimpole Street, London, W.I
Write for our folder

COW & GATE BABY POWDER

As from 1st September, 1956, Cow & Gate will be introducing their Baby Powder in an improved tin with a rotor cap top. A bonus of 1/d. for every dozen ordered during period 1st September, 1956-30th November, 1956, is offered. Trade price 14/1d. plus 4/3d. Purchase Tax per dozen (or 13/1d. plus 4/3d. Purchase Tax per dozen during above bonus period) and will retail at 1/11d.

BURROUGH'S ABSOLUTE ALCOHOL

JAMES BURROUGH LTD. 1 CALE DISTILLERY LONDON S.E.11



THE MANUFACTURING & WHOLESALE CHEMISTS
 who can be relied on for
REGULAR ROAD DELIVERIES
 in the West of England and S. Wales areas

Telephone: Bristol 21381



& CO LTD
 BRISTOL

Telegrams: "Ferris, Bristol"

Culmack SHAVING BRUSHES

Naturelle TWINKLE GLINTS & DUST

Retail Prices:— 1/11d., 3/11d., 7/3d., inc. P.T. Order from your Wholesaler or direct from HUNGAR HOUSE, GREAT GEORGE STREET, LEEDS, 1.

They always come back for more

Advertising, and word of mouth recommendation, bring the customers in—but it's the results that bring them back.

Dr. Page-Barker's Scurf and Dandruff Lotion and D.43 Shampoo have the reputation that ensures repeated sales—a reputation for unfailing reliability in keeping the scalp clean and free from dandruff. Make sure that you have a share in the prestige and profits that come from stocking these ever-popular lines.

A Page Barker showcard will catch the customer's eye and remind him of his need. Available on request.

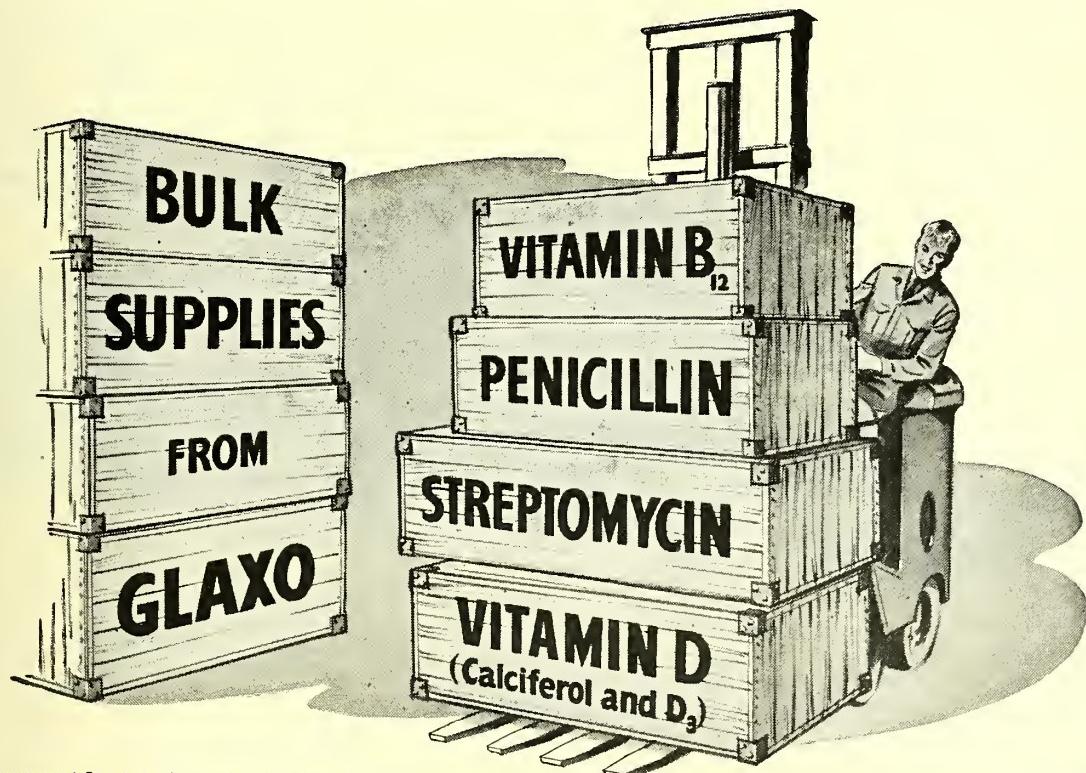
THOS. CHRISTY & CO. LTD.,
 North Lane, Aldershot,
 Hants.



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for high quality

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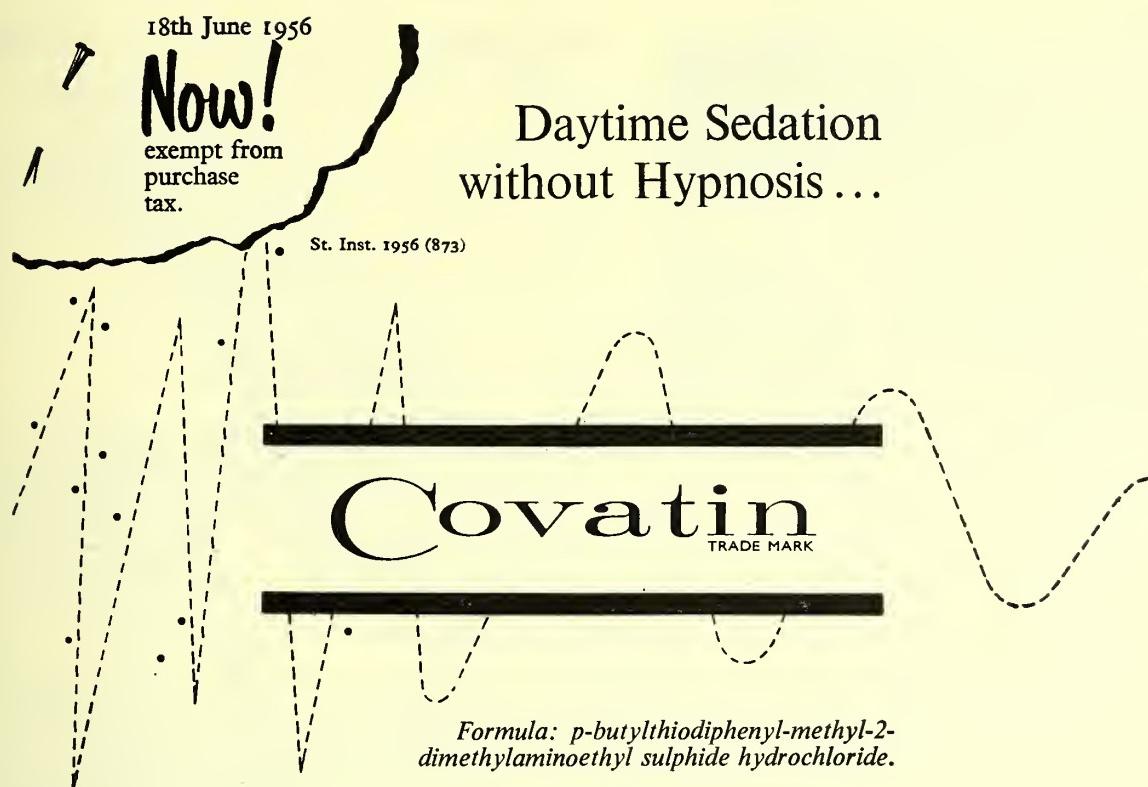
to any formula

consult **CARTWRIGHTS**

W. B. CARTWRIGHT LTD.

Manufacturing Chemists
RAWDON · LEEDS

- Official tablets made to a high standard.
- Tablets to all types of formulæ.
- Laboratory control at each production stage.
- Your "OWN NAME" labels.
- Quotations gladly given.
- A dependable service for tablets in bulk or packed.



Covatin, the new anti-anxiety drug promotes tranquillity and relief from tension without causing sleep or dulling of alertness. It is designed to meet the requirement of general practice.

PROVED BY CLINICAL TRIAL

The effectiveness of Covatin has been proved by comprehensive clinical trials carried out during the past 2 years.

BACKED BY A FULL PROGRAMME OF ETHICAL PUBLICITY

Covatin is being brought to the notice of the medical profession by advertisements in the professional press and by the mailing of literature to doctors throughout the country. Their prescription for Covatin will soon be coming to you. Be ready to meet this demand.

PACK

Available as 50 mg. sugar-coated tablets in bottles of 50 and 500.

COVATIN IS EXEMPT FROM PURCHASE TAX PRICE

50's 10/- each, list price 80/- per dozen
500 53/4 each, list price 640/- per dozen

Covatin



William R. Warner & Co. Ltd., London, W.4.



An attractively packed, steady selling line of known efficacy

Of the three examples illustrated, two are from our Chemist's Own Brand range of nine different styles which are designed to display your Own Name and Brand Mark.

The space for the latter is indicated by the arrows.

ARTHUR H. COX & CO. LTD.
BRIGHTON • ENGLAND



Please send us your enquiries

for

BISMUTH GLYCOLYLARSANILATE NNR 52

DEHYDROCHOLIC ACID

ESTERS of PARA - HYDROXY - BENZOIC ACID

NOVAMINOSULFONUM

QUABAIN (Quabainum G-Strophanthin)

PHENESIN (Citrate of Phenylethylacetic acid- β -diethylaminoethylester)

TETRACAINE HYDROCHLORIDE

HOMMEL PHARMACEUTICALS

121 Norwood Road, Herne Hill, LONDON, S.E.24

Tel: TULse Hill 3276/7



In just four to six weeks, SELSUN

restores the scalp to a clean, healthy condition.

Then — without further care — the patient's scalp remains free

from the scaling, itching and burning of seborrhoeic

dermatitis for one to four weeks. Clinical reports covering more

than 400 cases show that SELSUN controls 92 to 95% of common dandruff

cases, 81 to 87% of all seborrhoeic dermatitis cases. SELSUN is

remarkably simple to use. Patients just add it to their regular

hair-washing routine. It rinses out easily, leaves the hair and scalp clean and

easy to manage. SELSUN is available in 2 and 4 fluid ounce bottles,

with special direction label on every bottle.

SELSUN
REGD.

(Selenium Sulphide, Abbott)

Abbott

SELSUN literature will be sent on request to:

ABBOTT LABORATORIES LTD · PERIVALE · GREENFORD · MIDDLESEX.

The public wants **WITCH**

— A NATIONALLY ADVERTISED
PRODUCT



SELL IT NOW!

—Witch sales are rapid throughout the winter
—replenish your stocks before you run out.

THE NON-FLARING WEEKLY
DOSE SOOT ABATER

1'9 AND **2'9**

made by:—

GOURET & CO. LTD.
30/31 Plympton Street, London, N.W.8

Kwick-dry

(HOUSEHOLD) PAPER TOWELS

In Perforated Rolls at 2/-

FOR THE MODERN HOUSEWIFE

They save work and drudgery, serving a multitude of purposes in the Kitchen.

FOR DRYING HANDS
POTS and PANS
CLEANING & DRAINING
FRIED FOOD, etc.

Of soft, pleasing, crepe texture, KWICK DRY TOWELS are very absorbent, can be squeezed like a cloth and, being actually stronger when wet, they do not disintegrate. Our attractive Plastic Holders in colours to match Kitchen Units retail at 4/3.

This NEW Hygienic habit is catching on—encouraged by Press advertising.

Attractive Showcards available on request.

Samples and prices from the Paper Specialists:—

FREEDER BROTHERS PAPER MILLS
BRIMSDOWN · ENFIELD · MIDDLESEX

Telephone: HOWard 1847 (5 lines).

Grams: Sylkocrepe, Enfield



new!

ISO-BRONCHISAN

for



CHILDREN

These new double-action ISO-BRONCHISAN tablets for children are additional to the existing ISO-BRONCHISAN for adults.

RETAIL PRICES:—3/4 for 20; 14/8 for 100.

ISO-BRONCHISAN
DOUBLE-ACTION ASTHMA TABLETS

SILTEN LTD. Manufacturing Chemists
SILTEN HOUSE · HATFIELD · HERTS

Telephone: Hatfield 3012-3

Best news your till ever had!

New EXTRA-MEAT LASSIE

MORE REAL RED MEAT - PLUS LIVER!



Best Dog Food Ever - Now in a Smart New Pack!

For years Lassie has been the most popular of all canned dog foods . . . the one that sells fastest and brings you best profits.

Now comes the great news . . . a wonderful improved recipe for Lassie with *even more rich red meat!* And it still has all the tasty liver that Lassie is famous for.

FOR YOU IT'S EXTRA-PROFIT LASSIE!

This new Lassie will be even more popular, even more profitable for you! Selling at 10½d. and 1/7d.—with the same generous profit margins—new Extra-Meat Lassie means really valuable business—more profit per tin!

HUGE LAUNCHING CAMPAIGN!

Hard-selling advertisements in all the biggest national newspapers and magazines will introduce new Extra-Meat Lassie to your customers. There'll be a bigger demand than ever for this wonderful new Lassie!

NEW extra-meat
Lassie



INDUSTRIAL CHEMICALS

TEXTILE CHEMICALS

LAURYL PYRIDINIUM CHLORIDE

CETYL PYRIDINIUM CHLORIDE

Quaternary Ammonium Compounds of high surface activity.

COSMETIC CHEMICALS

STEBAC

An outstanding base for the hairdressing industry incorporating Stearyl Dimethyl Benzyl Ammonium Chloride. The corresponding Cetyl compound is also available.

PHARMACEUTICAL CHEMICALS

BENZALKONIUM CHLORIDE

(Distributed by Bayer Products Ltd.)

CETYL DIMETHYL BENZYL AMMONIUM CHLORIDE

CETYL PYRIDINIUM CHLORIDE

Quaternary Ammonium Compounds of high purity with outstanding Germicidal properties.

RUBBER CHEMICALS

ZINC DIETHYL DITHIOCARBAMATE

ZINC DIMETHYL DITHIOCARBAMATE

TETRAMETHYL THIURAM DISULPHIDE

Accelerators used in Foam rubber processing

ANTISTATIC CHEMICALS

HEATEX

A long chain Quaternary incorporating outstanding antistatic properties to plastics, synthetic fibres, etc.

CHLORINATED COMPOUNDS

ALKYL CHLORIDES

STEARYL CHLORIDE

CETYL CHLORIDE

MYRISTYL CHLORIDE

LAURYL CHLORIDE

BUTYL CHLORIDE

Intermediates for the manufacture of Amines, Quaternary Ammonium Compounds and Grignard compounds.

CHLORO-METHYL METHYL ETHER

A useful Chloro-Methylating agent and an intermediate in the manufacture of ion exchange resins.

para CHLORO-METHYL TOLUENE

At present in small scale production. A potential route to Terephthalic Acid.

ANHYDROUS HYDROCHLORIC ACID GAS

Solutions in various alcohols and ethers. Extremely useful materials for Esterifications and reactions involving the use of Anhydrous HCl and for the preparation of Anhydrous Amine Salts.

DYESTUFFS INTERMEDIATES

N. MONO ETHYL ANILINE • NN. DIETHYL ANILINE

We shall also shortly be introducing experimental quantities of the ring substituted Primary, Secondary and Tertiary Ethyl Anilines.

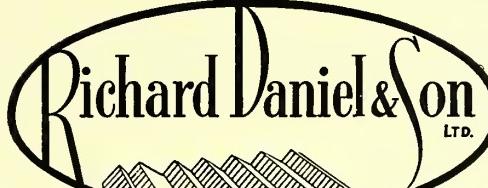
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CHEMICALS LTD

ELEY ESTATE
ANGEL ROAD
EDMONTON LONDON N18

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FOR CHEMISTS



DRUGS **SUNDRIES**

Manufacturing Chemists

**PILLS • TABLETS
PROPRIETARIES**

HEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 40671 (8 lines)

BRANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

ABC (and D) of health

Vitamins A B, C D₂—the public knows these are vital to year-round health.

Some people build up resistance against winter ills with a course of 'Multivite' in the Autumn. Others wait until winter is upon them. But one fact remains—where they see 'Multivite' displayed, they buy.

'MULTIVITE'

TRADE MARK

	TRADE	RETAIL
Bottles of 50 pellets	2/4	3/6
Bottles of 500 pellets	14/6	21/9
Bottles of 1000 pellets	27/6	



THE BRITISH DRUG HOUSES LTD. LONDON N.1



Business has never been so brisk in these supreme quality nylon hair nets. Attractive hanging cards with 3 or 6 dozen bright film envelopes are supplied for all grades of LION nylon hair nets and smart stand-up counter dispensers contain the ever popular LION 8 nylon hair nets.

No finer Quality
LION NYLON HAIR NETS



LION 7 (Strong general purpose nylon)
LION 8 (15 denier, small mesh)
LION 9 (Another very fine hair net)

Order from your wholesaler, or if difficulty, write for address of nearest supplier.

ROBERT SHAW & CO. LTD.
ASCOT ROAD, NOTTINGHAM
Tel. NOTTINGHAM 77231/2
LONDON OFFICE: CONDOR HOUSE, ST PAUL'S CHURCHYARD, E.C.4. Tel. CITY 3359

Makers of Quality Hair Nets since 1905

FIRMNESS
COMFORT
DURABILITY



Both prescribable under the N.H.S.

Manufactured by Everlastic Ltd, for
FASSETT & JOHNSON LTD.,
86 CLERKENWELL RD., LONDON, E.C.1

More and more people are drinking

Rose's
DIABETIC LIME JUICE

Rose's originally produced their Diabetic Lime Juice expressly for diabetics. But now, more and more people are getting to know that limes have less sugar content than any other fruit; second, that Rose's Diabetic Lime Juice is free from added sugar. They know it as an invaluable aid to healthy slimness, as well as a refreshing and delicious drink.

Backed by an interesting new advertising campaign in the Diabetic Journal and other medical publications, the demand for Rose's DIABETIC fruit drinks is growing.

Ensure that your stocks are sufficient to meet this demand.

ROSE'S ALSO PRODUCE ORANGE SQUASH & LEMON SQUASH, AS WELL AS SUGAR-FREE MARMALADE, IN THEIR DIABETIC RANGE



COMBINED BONUS OFFER

BEMAX & PHARMACEUTICALS

17th Sept.-6th Oct. 1956



Orders to qualify for these Bonus Offers can be made up

**of (1) BEMAX ONLY
or (2) BEMAX & PHARMACEUTICALS**

If the order is made up of Bemax and Pharmaceuticals it
MUST CONTAIN A MINIMUM OF 1 dozen x 3/- SIZE BEMAX
OR 2 dozen x 1/9 OR $\frac{1}{2}$ dozen x 5/6

Only the following products can be used to make up your Bonus Order :

BEMAX

1/9 — 16/6 per doz.
3/- — 28/6 per doz.
5/6 — 52/6 per doz.

**CHOCOLATE-FLAVOURED
BEMAX**

3/- — 28/6 per doz.

VITAVEL SYRUP

COMPLEVITE

PREGNAVITE

VITASPRIN

BEFORTISS

(Tabs, Amps and Elixir)

BECOVITE

(Tabs, Amps and Elixir)

Window and counter displays
for Bemax must be made
for at least 14 days. Display
material readily available.

ACT NOW!

Send your order immediately to :

Sales Dept. (Ref. AA6) Vitamins Limited, Upper Mall, London, W.6

NATIONAL Papers and MAGAZINES will bring you more sales for

FROM OCTOBER until the end
of **MARCH** you will see our
Advertisements in
NATIONAL NEWSPAPERS
and **MAGAZINES**

Winter lack of SUNSHINE brings more illness



NOW REDUCED TO
£12.12.0
(Exempt from Tax).
On prescription only.

British made — Guaranteed for 12 months

ULTRA-VIOLET SOURCE
150 watt High Pressure Quartz
tube. Erythema dose: 1 minute
at 1 yard.

INFRA-RED SOURCE
400 watt, deeply penetrating, entirely front
wired, black body element. Closes up to
9½" x 6" x 5".

DEALER'S NAME
and full address here
Telephone Number

ACTINEA

the Portable Sun

DOCTORS PRESCRIBE

vitaminising ultra-violet and deeply
penetrating infra-red rays.

FOR THE OLD—
—to relieve pains,
particularly Rheumatic, Sciatic, and
similar conditions.

FOR THE YOUNG—
—to help their bones to grow, through
the anti-ricket Vitamin D.

ACTINEA

the Portable Sun

Combines ultra-violet with infra-red. These rays, used under medical guidance, relieve pain, regenerate the tissues, destroy many germs and help to build up resistance against our winter climate.

WE are pleased to advise you that as a result of the increase in the sales of our Actinea Ultra Violet/Infra Red Sun Lamps, we have been able to reorganise our production in such a way as to enable us to produce these appliances very much more economically than in the past. These economies have enabled us to reduce the price of the Actinea from £14 14s. 0d. to £12 12s. 0d.

We are convinced that as a result of this lower price our trade customers will be able to double their sales in the coming season, and in order to support them in this endeavour we have made adequate provisions for large scale national advertising.

TO HELP
YOU
TO SELL

ACTINEA

the Portable Sun

ultra-violet and infra-red ray
PORTABLE UNITS
(packed singly in cartons needing
very little storage space)

£12.12.0

retail. On prescription only.

Full Trade Discounts
Exempt from purchase tax

This advertisement is shown
actual size.

PERIHEL LIMITED
WEST MALL WORKS, 27/29 RABBIT ROW, LONDON, W.8

Park 6886/7870/7296

EXTRA business you must not miss!

HERE IS A **NEW** PRODUCT YOU HAVE NEVER SOLD BEFORE, AND THEREFORE IT REPRESENTS NEW **EXTRA** BUSINESS FOR YOU !

Evan Williams

Tulip tissues

AUTOMATICALLY DELIVERED

Hygienic tissues for use with lipstick make-up

COST 4/2 PER DOZEN NO PURCHASE TAX. RETAIL 6d. PER PACKET

A possible EXTRA sale to EVERY woman customer.

INTRODUCTORY OFFER

1 DOZ. FREE BONUS WITH EACH ORDER FOR 3 DOZEN MEANS

WE WILL INVOICE 4 DOZ. AS 3 DOZ. IN THIS INTRODUCTORY OFFER

Complete order form and post NOW for this great OFFER !

TO:- EVAN WILLIAMS CO. LTD.
AINTREE ROAD
PERIVALE, MIDDLESEX

STOP PRESS

National advertising begins on October 15th



This brilliant NEW product by Evan Williams is printed in pleasing pastel colours, making a neat and compact display

OVER 100% PROFIT
(on best terms)

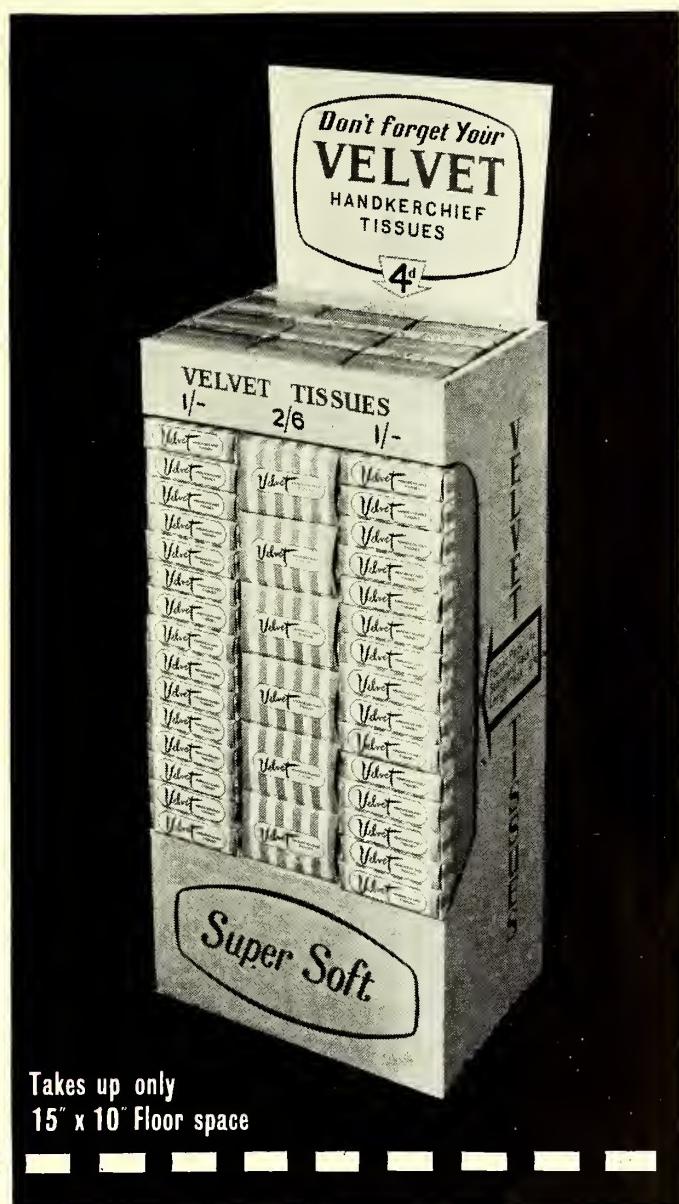
EACH UNIT CONSISTING OF	PLEASE SEND ME	UNITS		
		12.6	£	s.
	3 DOZ. 6d. Tulip Tissues at 4/2 per doz.	—	—	—
	1 DOZ. 6d. Tulip Tissues NO CHARGE	—	—	—
	Purchase Tax NIL	—	—	—
NAME				
ADDRESS				

75%
clear
is not to be sneezed at

THIS new Velvet dispenser is already stocked and requires no assembling. Just unpack it and put it out on display. Your stocks of Velvet displayed this way will sell themselves.

The *Velvet*
special
bonus offer

This brand new dispenser brings you 75% clear profit. You can't afford to miss this offer. So make sure you send this coupon right away. All coupons must be in by November 15.



upon

VELVET SPECIAL BONUS OFFER

Please supply me with one of your new VELVET tissue dispensers containing :

30 Standard Packs	(retail 1/- per pkt.)	TOTAL
6 Large Packs	(retail 2/6 per pkt.)	RETAIL
36 Pocket Packs	(retail 4d. each pack)	VALUE 57/-

is to be supplied for 32/6d. which means I will make more than 75% clear profit. I certify that this is my application for the VELVET Special Bonus Offer.

NAME AND ADDRESS.....

NAME AND ADDRESS OF USUAL WHOLESALER.....

OFFER CLOSES NOVEMBER 1st, 1956

C & D

ET CREPE PAPER CO. LTD., Alperton, Middlesex Tel: Wembley 8981/5

THAWPIT



BY APPOINTMENT TO
H.M. THE QUEEN
SUPPLIERS OF THAWPIT
THAWPIT LIMITED

Thawpit sales climb higher and higher

Be sure to keep your stocks up to meet demands created by present and future advertising.

POSTERS, PRESS ADVERTISEMENTS
followed by **COMMERCIAL TELEVISION**
in the autumn months are preparing the way to even greater sales.



1½ Standard Size Bottle



Large Cleaning Pad 2/-

Also available:

*Small Cleaning Pad 1/3
20 oz. Thawpit Bottle 6/-*



keeps clothes clean



TV SETS MILLIONS MORE PEOPLE LOOKING TO LOXENE FOR HEALTHIER HAIR

Every Week... the I.T.V. programmes will carry the Loxene message to millions of viewers—strengthening still further the nation-wide advertising campaign for Loxene anti-dandruff shampoo.

Every Day... in newspapers and magazines, throughout the country, millions of people are reminded that Loxene is the shampoo *that takes good care of the family's hair*.

Every Advertisement... helps to swell the demand for Loxene. Turn this demand into sales—from *your counter*—by stocking and displaying Loxene now—in both sizes: the new single-treatment sachet at 7d., and the economy-size bottle giving 8 shampoos for 1/10.

LOXENE MEDICATED SHAMPOO

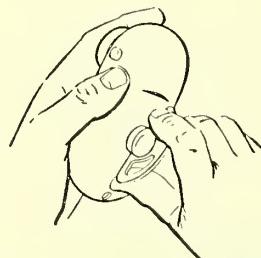
F. W. HAMPSHIRE & CO. LTD · SUNNYDALE · DERBY

THORENS-RIVIERA

**Mechanical (CLOCKWORK)
Dry Shaver**



(Patented in all countries)
British Patent No. 748126
Registered Design No. 876564



Wholesalers' (only) enquiries to

M. P. TOULSON LTD. 3 & 4 KIRBY STREET, LONDON, E.C.I

NON-ELECTRIC

**THE SHAVING
SENSATION OF THE CENTURY**

The Thorens Riviera Dry Shaver is entirely self-sufficient. No need for electric points, plugs, wires, soap, brush or water. Just wind it, press the button and shave with ease — anywhere. — LAND — SEA — OR AIR.

**SELF-SHARPENING BLADES
PRACTICALLY SILENT ACTION**

RETAILS AT £6 • 19 • 6
including P.T.

Efficient after-sales in this country

AND NOW—A SECOND HEAD

for trimming beards—moustaches and hair at back and sides of head. Will be welcomed by ladies for the removal of superfluous hair.

Retail price 29/6 including P.T.

NATIONALLY ADVERTISED

CAMILATONE ANNOUNCE

Display Bonus Offer for you



plus

**New Tōnrinz
dispenser to catch
her eye**

SEE THE PROFIT YOU MAKE ON THESE SPECIMEN ORDERS

12 doz. Tōnrinz	Selling at £5 6 6
plus 2 doz. FREE BONUS	Cost to you (inc. P.T.) 3 15 6
½ doz. Henna-Cream	Your Profit £1 11 0

18 doz. Tōnrinz	Selling at £8 17 0
plus 3 doz. FREE BONUS	Cost to you (inc. P.T.) 6 4 9
3 doz. Twin Pack	Your Profit £2 12 3
½ doz. Henna-Cream	

24 doz. Tōnrinz	Selling at £12 11 0
plus 4 doz. FREE BONUS	Cost to you (inc. P.T.) 8 17 6
4 doz. Twin Pack	Your Profit £3 13 6
1 doz. Henna-Cream	

REGULAR TRADE TERMS

	Trade Price (Per doz.)	Retail Selling Price
Tōnrinz	2/6 (+ 90% P.T.)	6d.
Twin Pack	4/- (")	9½d.
Henna-Cream	18/9 (")	3/9

Quantity discount: 5% on parcels between £2 and £3; 7½% on parcels of £3 and over. 2½% allowed on cash within 7 days.

OFFER ENDS OCTOBER 31st

— so order now

Write to : CAMILATONE LTD., EDGWARE ROAD, LONDON, N.W.9.



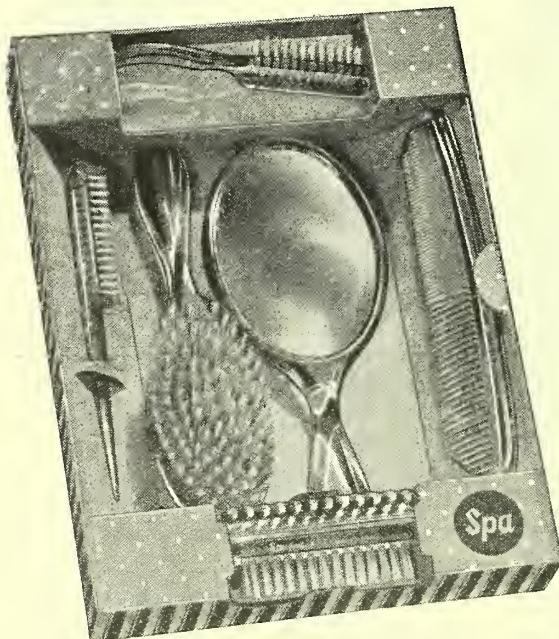
Order Tōnrinz Hair Colour-rinses now and with every gross ordered you'll get 2 dozen packets free. And each gross will come to you with this new eye-catching dispenser. It's a grand double offer open only until October 31st, so take advantage of it right away.

Advertising in selected high-circulation journals is stimulating a steady demand for Tōnrinz, and this new visual sales-aid will help you sell even more Tōnrinz. Display it on your counter and see!

Order, as well, Camilatone Twin Pack (Tōnrinz with special shampoo) and the new synthetic Henna-Cream that more and more women are using every week!



**—The Gift
that's always
in Season**



This Spa set retails readily at 21/9 but costs you only 16/- including purchase tax.

This is just one of the many big profit-making opportunities offered you by Spa. Spa have a special Christmas brush set to suit every purse and the retailer gets his full margin.

Ask your wholesaler for full details of these value-for-money gifts.



SPA BRUSHES LTD

Freeman Works • Chesham • Bucks

*As advertised in the leading
women's journals!*

ROZALEX

BARRIER CREAMS
—the invisible glove

On any job where hands are exposed to grease and grime or wet chores, Rozalex barrier creams, smoothed on before work, will keep hands healthy and clean.



No. 1 for DRY WORK
tube 1/9 tin 2/6

No. 8 for WET WORK tube 1/9
(Prices include P.T.)

ROZALEX LIMITED, 10 NORFOLK STREET, MANCHESTER 2

BEST-SELLERS

*ALL
the year round!*



"Sun-tang"

'NIAGARA'
Blackcurrant Syrup

Sun-tang—made from whole oranges, sugar and glucose—contains Vitamin C, essential to good health.

Niagara—made from Blackcurrant juice and sugar-rich in Vitamin C—the perfect drink for young and old alike.

Increased advertising means more customers for you—more customers asking for both these delicious, health-giving drinks. Meet the extra demand by ordering ample stocks NOW and make sure of year-round profits. Eye-catching display material, certain to boost sales, can be obtained from your usual wholesaler or direct from

BARNETT & FOSTER LTD.

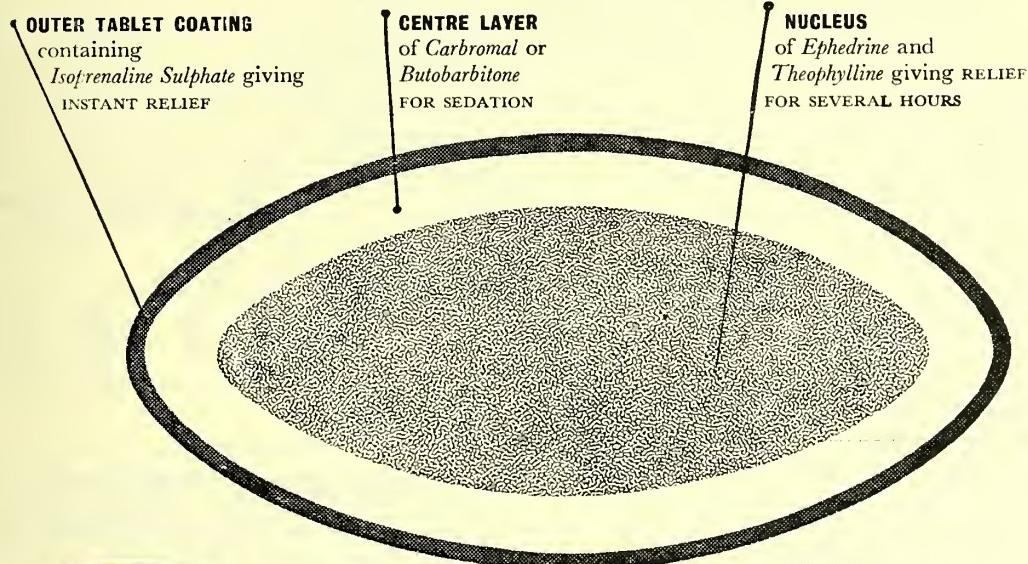
QUEENSBRIDGE ROAD, LONDON, E.8.

Tel.: CLissold 7132



SUSTAINED RELIEF OF BRONCHIAL ASTHMA

PROVIDED BY RELAY ACTION IN A SINGLE TABLET



By NIGHT

FYDAL

FYDAL TABLETS, containing Butobarbitone, are intended for night use and should be taken when premonitory symptoms of an attack appear.

Formula: Ephed.Hydrochlor.,B.P.32 mg.

Theophyll., B.P.	64 mg.
Isoprenal. Sulph., B.P.	10 mg.
Butobarbiton, B.P.C.	48 mg.

Basic N.H.S. price . . . foil-pack of 10 tablets . . . 1/8d.

BY DAY

FYDALEX

FYDALEX TABLETS, contain Carbromal in place of Butobarbitone and are for use during the day. Like FYDAL, they provide immediate and prolonged relief.

Formula: Ephed.Hydrochlor.,B.P.32 mg.

Theophyll., B.P.	64 mg.
Isoprenal. Sulph., B.P.	10 mg.
Carbrom., B.P.C.	96 mg.

Basic N.H.S. price . . . foil-pack of 10 tablets . . . 1/4¹/₂ & 5d. P. Tax

Used conjointly, FYDAL and FYDALEX provide an effective round-the-clock treatment and may be prescribed accordingly.

Available from your usual wholesaler or from Wholesale Division of:

BOOTS PURE DRUG COMPANY LIMITED · STATION STREET · NOTTINGHAM · ENGLAND
TEL. NOTTINGHAM 45501 OR 71 FLEET STREET LONDON E.C.4. TEL. FLEET ST. 0111



This year—

Rheumatic sufferers
will be going in for

DOLS'

Flannel & Rub



A National Advertising campaign embracing Press, Television and Radio Luxembourg will this year put DOLS' Flannel and DOLS' Rub into thousands of homes all over the country. The demand will be raised in the peak months of winter ailments and we will have extra supplies of both the Rub and Flannel available for you. Stock up to take command of your area sales.

DOLS' VOLATALISE FLANNEL LTD., HUDDERSFIELD, YORKSHIRE



★ Examples of advertisements that will appear in a nation wide campaign from October to March.

QUEEN

**Non Allergic
BEAUTY PRODUCTS**

THE SAFETY FACTOR IN
EVERY DAY MAKE-UP

Queen beauty products form a complete range of toilet and beauty preparations, including lipsticks, specially for those women who have sensitive skins. Queen products contain no orris in any form, nor any other skin irritants AND ARE RECOMMENDED BY THE MEDICAL PROFESSION.

Obtainable from your Wholesaler
or direct from . . .

BOUTAUX CHEMISTS LTD.
60 Lambs Conduit St., London, W.C.1



SURE-SELLING STOCK!

OVER 150 YEARS REPUTATION
KEARSLEY'S

THE ORIGINAL
WIDOW WELCH'S FEMALE PILLS

Over 10d BOX PROFIT by ordering 1 dozen
4/3 size. Bonus given on every dozen (13)
It pays to push this size.

Established 1787
in the Reign of
King George III

C. & G. KEARSLEY LTD.
71 DARTMOUTH ROAD, LONDON, S.E.23

ITONA SUGAR CANE MOLASSES

packed in glass jars for convenience and better protection

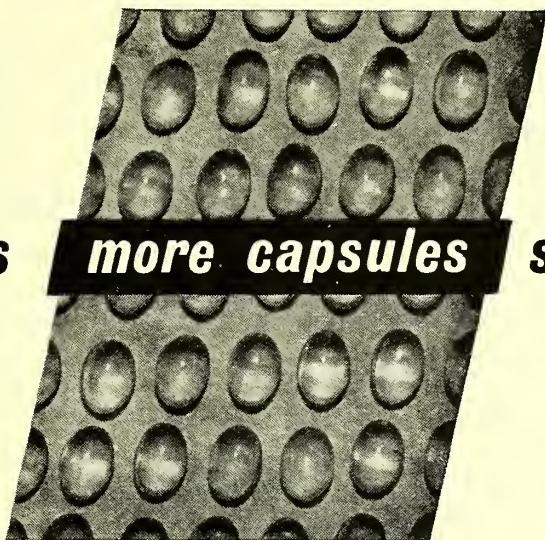
available in various sizes

SELLING AGENTS

Jeffreys, Miller and Co Limited

Leyland Mills Wigan
also at 19-25 Brookside Road Upper Holloway London N19

new packs more capsules same prices



better value for money with

CROOKES halibut oil capsules

Now 30 for 2/6 · 60 for 4/6 · 120 for 8/6

The new economical packs are featuring prominently in Crookes biggest-ever publicity campaign on television and in the national dailies, popular weeklies and leading women's magazines. Attractive show material and window displays are available. You are bound to profit from such tremendous support for your across-the-counter sales. So check your stocks now. We will replace old packs of 25 and 100 with the new 30 and 120 packs on a pack for pack basis, in good time for you to meet the extra demand.

N.B. Bonus on vials of Oil and Infants Emulsion is now discontinued.

Bonus Terms have already been mailed to you

CROOKES HALIBUT OIL CAPSULES



THE CROOKES LABORATORIES LIMITED · PARK ROYAL · LONDON · N.W.10

**WIN
the loyal
Cuticura public
to YOUR Pharmacy**

Cuticura Medicinal and Toilet Preparations have a public, old established and ever expanding, which is remarkable for its loyalty to these Firm Family Favourites . . .

Cuticura Soap . . . Cuticura Ointment . . . Cuticura Talcum Powder . . . Cuticura Shaving Stick . . . now joined by Cuticura Hand Cream and Cuticura Medicated Liquid.

Cuticura advertising appeals forcefully to the new generation of teenagers and young mothers, building up each year ever more satisfied customers to swell the numbers of those who insist that nothing will do but Cuticura Quality.

WIN THESE CUSTOMERS

Just one pack of each of the Cuticura Preparations in your attractive window will catch the eye of every Cuticura Customer. They know that the pharmacy that sells their Cuticura, stocks only the best.

**STOCK AND
DISPLAY**

Cuticura
SOAP
OINTMENT
HAND CREAM
SHAVING STICK
TALCUM POWDER
MEDICATED LIQUID

330



MEDICINAL NORIT

Holland's great remedy for stomach disorders. This famous Dutch preparation of pure activated Charcoal IN TABLET FORM is now available in Great Britain.

Supplied in Display Boxes of 12 Tubes each containing 25 Tablets.

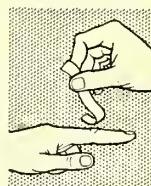
RETAIL PRICE 2/6 PER TUBE

Advertising has begun in the West Riding area and will continue in others.

Order from your usual wholesaler or—

**MACWILL & COMPANY LIMITED
7 WEST ROAD, KINGSTON-ON-THAMES**

Telephone: MALDEN 8558



When customers need Prestoband—they need Prestoband: there's nothing quite like it. More than a bandage, not a plaster—Prestoband provides a quick, neat dressing that allows the skin to breathe and helps the wound to heal. And it comes off as easily as it goes on: no painful tugging, no unpleasant sticky mess. Customers who know Prestoband, will demand it—any who don't, will thank you for recommending it.

PRESTOBAND

THE ANTISEPTIC SELF-ADHESIVE BANDAGE

Sticks to itself, but NOT to the skin!

Generous trade terms. Packed in attractive counter display outers.

3 widths: 2", 1" or $\frac{5}{8}$ " at 1/6, 9d, or 7d a 4-yard roll.

MADE BY VERNONS OF PRESTON • SOLE DISTRIBUTORS IN THE U.K. ARE FASSETT & JOHNSON LTD., 86 CLERKENWELL ROAD, E.C.I AND IN IRELAND • FASSETT & JOHNSON (IRELAND) LTD., 6 CROW STREET, DUBLIN

Regularly needed by thousands of women

SOUTHON BRAND



TABLETS FOR PERIOD PAINS

**WILL BE BROUGHT TO THE
NOTICE OF THOUSANDS MORE
THROUGH . . .**

National Advertising

NATIONAL PRESS ADVERTISING

Selected Womens' Journals remind thousands of women readers all over the country that they need not suffer the discomfort of period pains.

POINT-OF-SALE DISPLAY

Attractive but discreet Showcards and Display Dispensers link your premises with the overall campaign by providing constant reminders to your women customers.

SAMPLES

Generous free samples are available to enable you to prove to your potential customer that the effective combination of Ephedrine and Phenacetin has made E.P. Tablets the accepted treatment for period pains.

For further details please get in touch with your Wholesaler or direct to:-

SOUTHON LABORATORIES LIMITED

88 UPPER RICHMOND ROAD • LONDON • SW15



EVANOL

*Another addition to these
BIG selling numbers*

Yet another Evanol Colourant — Following the great success of our Brown No. 18, we have now introduced our (new) Black No. 16 which is a semi-permanent tint—cum rinse—cum brightener for Grey, Black or Dark Hair. Your customers will be asking for Evanol Hair Colourants so stock up to meet the demand.

EVANOL COLOURANT RANGE

SUPPLIED IN 5 COLOURS. No. 10 COPPER—

NO. 12 GOLDEN (BLONDE) — NO. 14 AUBURN —
No. 16 BLACK (FOR GREY, BLACK OR DARK HAIR) —
NO. 18 BROWN (FOR GREY, ALSO BLEACHED HAIR)

In 1 oz. bottles at 3/2 — 2 oz. at 5/6

Order from your usual supplier or enquire from us.

Write for FREE SHADE and SHOW CARDS

EVANOL LTD. Highbury, London, N.5 (Enquiries Dept.). Tel.: CANonbury 1984

By Appointment to H.M. The Queen



Manufacturers of Vacuum Vessels

THERMOS = 40 X PROFIT



Flasks . Jugs . Jars
Bowls . Dewar Vessels

Thermos (1925) Limited · Seymour Rd., London, E.10
Phone: Leytonstone 4061-4 Cables: Thermos, London



*prices that
show a Good Profit*

If your Customers

just ask for

Warfarin Rat or Mouse Poison

SELL THEM

RODINE
WARFARIN

and you sell the best.

Repeated recommendations of Rodine means repeated profits for you.

Available as Ready-To-Use or Concentrate.

THOMAS HARLEY LTD.
RODINE WORKS · PERTH · SCOTLAND

A NEW Textbook for Students of Photography . . .

The series of articles entitled—

'A MODERN COURSE OF PHOTOGRAPHIC STUDIES'

that ran in THE CHEMIST AND DRUGGIST from November 1953 to December 1955 has now been published as a Textbook. 51 pp. size 11" x 8½" with Linson Cover—PRICE 7s 6d or 7s 9d post free.

★ *Adapted to the requirements of students for the examinations of the Photographic Dealers' Association it is a worthy successor to the original C. & D. "Course of Photographic Studies"*

Edited by H. BAINES, D.Sc., F.R.I.C., F.I.B.P., Hon. F.R.P.S.

with chapters by T. J. L. BENTLEY, B.Sc., D.I.C.A.R.C.S.

MORTIMER SHAPLEY, A. FINNIS ATTWELL

— As its name implies, 'A MODERN COURSE OF PHOTOGRAPHIC STUDIES' fits the requirements of an up-to-date examination syllabus.

Obtainable from the Publisher—


**The
CHEMIST AND DRUGGIST**
28 ESSEX STREET, STRAND, LONDON, W.C.2

To prevent AUTUMN LOSSES

Braxy, the autumn killer, has a preference for attacking the best conditioned sheep. The causal organism, *Clostridium septicum*, invades the mucous membranes of the fourth stomach, where it produces a lethal toxin which kills the animal.

Efficient protection can be given by the use of a vaccine containing products of the lysed *Clostridium septicum* and potash alum precipitated toxoid. 'Wellcome' brand Improved Braxy Vaccine has during the past two years proved its superiority over the formolised culture vaccines in previous use. One single dose, 2 c.c., of the Improved Vaccine is generally sufficient to produce a high level of immunity in the injected animal. In braxy areas where blackleg is also present, combined protection is obtained by the use of 'Wellcome' brand Improved Braxy-Blackleg Vaccine.

'WELLCOME'^{BRAND} IMPROVED BRAXY VACCINE

in containers of 50 c.c. and 100 c.c.

also

'Wellcome'^{BRAND} Improved Braxy-Blackleg Vaccine

in containers of 50 c.c. and 100 c.c.

Prepared at THE WELLCOME RESEARCH LABORATORIES, BECKENHAM



SUPPLIED BY

BURROUGHS WELLCOME & CO.

(THE WELLCOME FOUNDATION LTD.)

LONDON

WELLCOME
INSTITUTE
LIBRARY

Wellcome

**FOR
FINE CHEMICALS**

PHOLCODINE

CONCERNING PHOLCODINE

Pholcodine is the approved name for Morpholinylethylmorphine.

The properties of Pholcodine are:

- Less toxic than Codeine
- Higher anti-tussive factor than Codeine
- Less constipating than Morphine or Codeine.

PHOLCODINE



MANUFACTURED IN ENGLAND BY

ALLEN & HANBURYS LTD
LONDON E2



THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 166

September 15, 1956

No. 3995

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EDITORIAL AND PUBLISHING OFFICES

28 ESSEX STREET, STRAND, LONDON, W.C.2

Telephone: Central 6565

Telegrams: Chemicus, Estrand, London

Branch Offices:

BIRMINGHAM, 2: 111 New Street

Phone: Midland 2921

GLASGOW: 35 Kings Lynn Drive, LEEDS, 16: 32 Wynford Rise,
King's Park, S.2. West Park. Phone: Leeds 67.8438

Phone: Langside 2813

ANNUAL SUBSCRIPTION, which includes The Chemist and Druggist Diary and Year Book, £2. Single copies one shilling each.

'GANTRISIN'

TRADE MARK

BRAND

eye drops

have no sting

Therefore

when you order 'Gantrisin' Eye Drops
you can be sure that

the patient will co-operate

'Gantrisin' Eye Drops contain sulphafurazole the all-purpose sulphonamide. Available as 4 per cent solution in bottles of 10 c.c. with dropper
Eye Ointment (4 per cent) in tubes of 5 g.

ALSO AVAILABLE FOR SYSTEMIC USE

Tablets (0.5 g.) in packings of 20, 100, and 500
Ampoules (2 g. in 5 c.c.) in packings of 3 and 25
Syrup (0.5 g. in each 5 c.c.) in bottles of 100 c.c. and 500 c.c.

ROCHE PRODUCTS LIMITED, 15 MANCHESTER SQUARE, LONDON, W.1.

The CHEMIST AND DRUGGIST



Volume 166

SEPTEMBER 15, 1956

No. 3995

No Chemist Contractor

MINISTRY'S REPLY TO TRADES COUNCIL

THE Ministry of Health has replied to Oxford trades council on the question of the lack of a Health Service chemist contractor at Marston (see *C. & D.*, August 25, p. 184). The Ministry points out that it is against the principles of the National Health Service Act that anyone should be compelled to work for the Service. Discussing the Ministry's reply at a meeting of the council on August 30, several members said that they were still dissatisfied with the situation, and it was agreed that steps should be taken to bring the matter to the attention of the Trades Union Congress. One member of the council suggested that an acute shortage of pharmacists might justify an investigation of the Pharmaceutical Society by the Monopolies Commission.

Standards Institution

FIRST PRESIDENT-CHAIRMAN

THE separate offices of president and of chairman of the general council of the British Standards Institution have been combined. At the annual meeting of the Institution in London on September 4, Sir Herbert Manzoni (Birmingham's city engineer), who is already chairman of council, was elected the first president under the new arrangement, which is a move to simplify the organisation. Sir Herbert succeeds Sir Roger Duncalfe (chairman, British Glues & Chemicals, Ltd.). Mr. John Ryan (vice-chairman, the Metal Box Co., Ltd.), was re-elected vice-president of the Institution. The following were elected, as representatives of B.S.I.'s chemical division council, to serve on the general council: Mr. G. J. Cutbush (a director, Metropolitan Leather Co., Ltd.); Mr. G. Dring (research director, Bakelite, Ltd.); and Sir Knowles Edge (managing director, W. Edge & Sons, Ltd.).

Doctors' Drug Stocks

EFFECT ON CHEMISTS' REMUNERATION

ALLEGATIONS that the stocking of too large quantities of drugs by doctors was affecting the livelihood of dispensing chemists were made on September 6, at a meeting of Aberdeen and Kinross Executive Council. It was explained that, if doctors obtained large stocks of drugs from chemists, the chemists were denied dispensing fees. MR. JOHN SIMPSON, M.P.S., Banchory, said that some doctors laid in large stocks of drugs through their stock order forms and pharmacists in many areas were worried. There was no doubt, he said, that that practice had



NIGERIAN VISITORS AT BARNET : Mr. E. C. Akwiwu, N.H.R. (left), a member of the Nigerian House of Representatives, and his brother photographed during a visit to the factory of S. Maw, Son & Sons, Ltd., recently. They are seen in the surgical dressings section with Mr. Denys Maw (managing director).

grave repercussions on the remuneration of some chemist contractors. Mr. H. J. Milne, Fraserburgh, admitted that some doctors might keep too large stocks, but he was satisfied that that did not happen often. It was decided to approach the Department of Health for Scotland to ensure that in future doctors stocked only reasonable quantities of drugs.

Dangerous Drugs

AN AUTHORITY RESTORED

THE withdrawal of authority from Richard Morton Geldart, M.R.C.S., Eng., L.R.C.P., Lond., to be in possession of and to supply and to give prescriptions for Dangerous Drugs has been suspended by the Home Secretary. The authority was last withdrawn from him in 1948.

Pharmacy Management

EVENING COURSE IN LONDON

A COMPREHENSIVE course of instruction in pharmaceutical business administration is being held at the Bonington hotel, Southampton Row, London, W.C.1, on Monday evenings from October 29, 1956, to March 25, 1957. Consisting of fifteen lectures and two showroom visits, the course deals with business problems from the retail phar-

macist's angle, and covers the legal aspects of pharmacy management, development of modern pharmacy, salesmanship, economics of pharmacy, shop lighting, office machines, pharmaceutical costs and costing, taxation, pharmaceutical statistics, display, profit, and profit control, stock control, and management accounting. The lecturers are: Miss M. Wilde, B.Sc. (Lond.); Messrs. J. G. P. Barber, B.A. (Oxon.); L. M. Bennett, B.A. (Cantab.), LL.B. (Cantab.); L. C. Downing; R. L. Jones, A.S.A.A.; A. Plowman, M.A. (Oxon.); D. W. Smallbone; and H. W. Tomski, B.Com. (Lond.), M.P.S., F.S.S., who is responsible for arranging the course. The course is open to all pharmacists and the fee is £5 5s. Applications for enrolment should be sent to Mr. H. W. Tomski, 64 Boldmere Road, Eastcote, Middlesex, as soon as possible.

Pictorial Photography

SOCIETY'S AUTUMN SHOW

THE Royal Photographic Society's autumn exhibition of pictorial photography is being officially opened by Sir Gerald Kelly (a past-president of the Royal Academy) in the Society's house, 16 Princes Gate, London, S.W.7, on September 20. The exhibition of prints and transparencies in colour, monochrome and stereo, is open to the public free of charge from September 21 to October 27, from 10 a.m. to 7 p.m., Mondays to Fridays; and from 10 a.m. to 5 p.m., Saturdays. The exhibition is closed on Sundays.

Restrictive Practices

INDUSTRIALISTS' GUIDE TO ACT

THE Federation of British Industries has published a guide to the Restrictive Trade Practices Act, 1956. The preface points out that the Act "represents a new and radical departure for Britain in that for the first time Parliament has expressed, through that measure, a general disapproval of restrictive practices on the management side of industry and commerce." The Act, continues the preface, touches industry at many points and its implications and scope are more far-reaching than may at first sight appear. The purpose of the booklet is, therefore, to enable industrialists and trade association officials to see whether they are likely to be affected, and if so to take legal advice. The preface emphasises that the last word in each case will rest with the new Restrictive Practices Court — a procedure which the F.B.I. itself has always favoured—and that much will depend on the Court's interpretation of the complex provisions of the Act. The provisions are summarised in eight chapters, one of which

includes a discussion of the criteria to be used by the Court in reaching its decision. Other chapters deal with the enforcement of resale price maintenance and with the functions of the reconstituted Monopolies Commission. A time-table for the registration of agreements is given as an appendix. The booklet, copies of which are being sent to all members of the Federation, is obtainable from the Federation, 21 Tothill Street, London, S.W.1, price 4s., post free.

IRISH NEWS

Ulster Chemists

GIFT FOR ASSISTANT SECRETARY

AT a social gathering held in Belfast on September 3, Mrs. E. Coulter (assistant secretary, Ulster Chemists' Association) was presented with a leather writing case and fountain pen by the committee of the Associates' Section of the Association as a gift to mark her leaving after seven years' service, to reside in England. Mr. J. E. Morley (chairman), calling upon Mrs. T. O'Rourke (vice-chairman) to make the presentation, paid tribute to the efficient manner in which Mrs. Coulter had looked after the affairs of the Associates' Section, thus reducing the officers' work to the minimum, and said they would all miss her cheerful help and presence. On behalf of the members he expressed thanks to her and very best wishes for happiness in her new surroundings. Mrs. O'Rourke, Mr. T. Hunter and Mr. J. Kerr (speaking on behalf of past-chairmen) endorsed Mr. Morley's remarks. Mrs. E. Coulter suitably replied.

NEWS IN BRIEF

THE annual meeting of the Society for General Microbiology is being held in the University of Exeter, September 20-22.

BRADFORD Executive Council has decided to pay a pharmacist for seventeen prescriptions, the forms for which had been accidentally burned; the ashes were sent by the pharmacist as supporting evidence.



PRINTED IN DUBLIN : Sheets for the C. & D. Daily Bulletin in process of printing prior to being issued to Conference members.

MARRIAGES

ROBERTS — MARSLAND. — At Hope Baptist Church, Hebden Bridge, Yorks, on September 8, Peter Roberts to Ina Evelyn Marsland, M.P.S., 51 Bridge Lanes, Hebden Bridge.

Golden Weddings

PLATTIN—BOCOCK.—At St. Mary's Church, Peterborough, on September 12, 1906, Spencer Howard Plattin, M.P.S., to Louisa Maud Bocock. Present address: 35 Harrow Road, Wollaton Park, Nottingham.

REES—PHILLIPS.—At Llanddowror Church, Carmarthens, on September 10, 1906, Mr. John Rees, M.P.S., to Annie Phillips. Mr. Rees was in business in Swansea from 1897 to 1938 and is a director of I. Rowland James, Ltd., wholesale chemists, Swansea and Cardiff.

DEATHS

GRAY. — On September 3, Mr. William Mercer Gray, M.P.S., 35 Park Lane, Roundhay, Leeds, aged seventy-one. Mr. Gray was managing director, Charles F. Thackray, Ltd., wholesale and retail chemists, Leeds. After serving an apprenticeship with his grandfather, Alderman R. Shorrock, Darwen, Lancs, Mr. Gray began his career as a pharmacist with Burroughs Wellcome & Co., and joined Messrs. Thackray in 1912, becoming managing director in 1935, following the death of the late Mr. Charles F. Thackray. He was an officer of the Grand Lodge of Freemasons, an officer of the Provincial Grand Lodge of the West Riding, and a Past Master of the Excelsior Lodge, Leeds. He was also a director of the Leeds Masonic Hall Co., a member of Leeds County Conservative Club, and vice-president and a member of Leeds Operatic Society. He is survived by his widow and one son.

HOGLEY.—At 7 The Valley Green, Welwyn Garden City, Herts, on September 9, Mr. Percy Hogley, M.P.S., F.B.O.A., aged seventy-nine. Mr. Hogley was in business for several years in Earby, Yorks, before going to Blackpool where he was for some years secretary of the local branch of the Pharmaceutical Society. In 1928 he sold his businesses in Blackpool and purchased an old-established dispensing business in Withington, Manchester. He retired in 1946 from active work and some months ago went to live in Hertfordshire. His daughter is Mrs. Catherine M. Wrigley, who qualified as a chemist and druggist in 1929 and worked for several years with her father in Withington, Manchester.

KELSEY. — On September 6, Mr. Arthur Machen Kelsey, 34 Whitmore Road, Taunton, Somerset, aged eighty-one. Mr. Kelsey had a pharmacy in Fore Street, Taunton, for many years.

KIRK. — Suddenly on September 9, while on holiday in Torquay, Mr. Thomas Irving Kirk, M.P.S., 64 Turret Road, Knightswood, Glasgow, W.3, aged sixty-two.

POWELL. — At his home in Prees, Whitchurch, Salop, on August 24, Mr. Harold Powell. Mr. Powell was foun-

der director in 1920 of Vernon Powell, Ltd., Croydon. Since retiring to his birthplace in Shropshire he had taken a keen interest in local government.

SKINNER. — At 89 Gardiner Road, Edinburgh (her daughter's home) on September 2, Mrs. Anne Park White Skinner, wife of Mr. James Auld Skinner, M.P.S., formerly of 3 Keith Crescent, Blackhall, Edinburgh, 4.

STREET. — In hospital in Louth, Lincs, recently, Mr. Sydney Charles Street, M.P.S., 108 High Holme Road, Louth, aged seventy-two. Mr. Street had been in business as a chemist in Louth for fifty-one years. He opened his pharmacy in Corn Market in 1905, and carried it on until about two years ago, when he sold out to go into business with his son as wholesale chemists at premises in Northgate. Mr. Street had been a local Methodist preacher since 1901. He was a senior member of Louth Toc H, and had served as a borough magistrate since 1944. He was chairman of Lindsey Building Society and a commissioner of taxes for Louth. He is survived by his widow, two sons and a daughter.

PERSONALITIES

MR. R. MCKINNON WOOD (chairman, Griffin & George, Ltd.) has been appointed vice-chairman of the committee which is advising the Government on the recruiting and training of technical college teachers.

MR. PAUL SCHWARZ, a grandson of the founder of the Polak & Schwarz organisation, has joined the staff of Polak & Schwarz (England), Ltd., Enfield. He is the second son of the late Mr. Samuel Schwarz who, in conjunction with his cousin, Mr. Adolph Schwarz, was responsible for the formation of the English company in 1926. Mr. Paul Schwarz has had a wide and varied experience in the essential oils trade in Europe and overseas, and has held during the past eight years executive posts in Polak & Schwarz companies and branches in various parts of the world.

SIR ROBERT ROBINSON, F.R.S., celebrated his seventieth birthday on September 13. To mark the occasion, Interscience Publishers, Inc., New York, are publishing a book entitled "Perspectives in Organic Chemistry" which is being edited by Sir Alexander Todd, F.R.S.

FOR Mr. J. Caldwell, M.P.S.N.I., Belfast, the week commencing September 3 was not only Conference week but the occasion of an important inter-city (Dublin v. Belfast) bowls match at Kenilworth, Dublin. Although the Belfast team lost to Dublin by thirty-one shots in a match played in a rather unpleasant drizzle.



COMPANY NEWS

Last year's figures in parentheses

CARBON DIOXIDE CO. (a division of the Distillers Co., Ltd.) have appointed Mr. S. C. Stewart to be director in charge of the division.

J. C. & J. FIELD, LTD.—Group profits for fifteen months ended June 30, before tax, are £120,904 (£84,516 in previous twelve months); tax, £58,395 (£35,108); ordinary dividends, 17½ per cent.

ARNOLD M. GEE, LTD.—Group profit for year ended March 3 is £25,082 (£22,494) less tax of £13,027 (£10,976). Dividend is 20 per cent. on larger capital. The directors state that since March 31 comparable turnover shows further increase and National Health Service dispensing has improved.

ALBRIGHT & WILSON, LTD.—The unaudited results of the group for the half year ended June 30, 1956, are given below. The acquisition of Marchon Products, Ltd., late in 1955, makes comparison with the similar period of 1955 difficult and accordingly two sets of 1955 figures have been given. It should be noted that Solway Chemicals, the main subsidiary of Marchon, only commenced operation in the second half of 1955.

Six months to June 30			
	1956 £,000s	1955 £,000s	1955* £,000s
Trading profit	2,292	1,577	1,781
Depreciation	919	669	750
Profit before tax	1,373	908	1,031
Tax	817	520	590
Group net profit	556	388	441

*Includes Marchon

An interim dividend on the Ordinary stock of 5 per cent. is declared—the same rate as for 1955 but is payable on increased capital.

BUSINESS CHANGES

A.B. PRODUCTS (BRADFORD), LTD., have opened London offices and showrooms at 4 Burdon Street, London, E.C.4 (telephone: City 4884).

THE changes in the sales organisation of Southalls (Birmingham), Ltd. (C. & D., September 8, p. 237), apply only to the United Kingdom. Export sales arrangements are unaltered.

DUNN BROS., SUCCESSORS, LTD., transferred their offices to 31 King Street West, Manchester, 3, on September 15 (telephone: Deansgate 5581).

PULLIN OPTICAL CO., LTD., and STANLEY COX, LTD., have transferred their offices and showrooms to Electrin House, 93 New Cavendish Street, London, W.1 (telephone: Langham 4551).

HESS PRODUCTS, LTD., 4 Albion Street, Leeds, 1, have appointed Anglo Scottish Chemical Co., Ltd., Bank of Scotland Chambers, 20 Renfield Street, Glasgow, C.2 (telephone: Glasgow Central 7421) their representatives for Scottish sales (apart from the paint and printing ink trades).

TOPICAL REFLECTIONS

By Xrayser

Hospital Planning

Your illustrated article on the first post-war hospital in the Vale of Leven is heartening in its message to pharmacy. The development shows a clear appreciation of two important points. First, there is no longer in evidence that unhappy characteristic of earlier generations of hospital managers who so arranged things that the pharmaceutical department was unobtrusively situated in the basement, usually between the boiler-house and the mortuary. (It could not be anywhere else: that was the only place left when the other departments had had their allocation of space.) The second point, which should give even greater cause for satisfaction, is that there has been careful planning in consultation with pharmacists. The new department looks attractive and efficient, and would have given rise to wonder in a famous son of the Vale of Leven—Tobias Smollett—who entered medicine by serving an apprenticeship in an apothecary's shop in Glasgow. In view of recent discussion on the academic and the practical in pharmacy, the interview between Roderick Random and Mr. Launcelot Crab, surgeon, is worth recalling. Young Roderick boasted that he understood a little pharmacy and was not ignorant of surgery, which he had studied with great pleasure and application. "Studied surgery!" said Crab. "What? In books I suppose. You can already account for muscular motion, I warrant, and explain the mystery of the brain and the nerves—ha? You are too learned for me; damn me. But let's hear no more of this stuff. Can you bleed and give a clyster, spread a plaster, and prepare a potion?"

Branch Activities

The news that the Pharmaceutical Society is to curtail drastically its programme of evening meetings has been accepted stoically. Attendances have been falling, and one wonders if the fare provided was of the kind to make an appeal. Attendance at meetings, as all organisers know, is quite unpredictable. The void left in the metropolitan area is a challenge to the branches. That there is a demand for organised instruction on a refresher basis is evident from the success attending the praiseworthy efforts of the Croydon branch, which, in conjunction with the technical college, is running a most comprehensive series of lectures in the college during the winter months. In a brief mention of the matter some weeks ago, I expressed the hope that the enterprise would meet with reward. A letter from the secretary (Mr. G. F. Clarke) informs me that enrolments have reached between sixty and seventy—a total that can surely be regarded as a most encouraging response.

Modern Advertising

I have had occasion to remark on the changes we have seen in pharmaceutical practice over the years. From time to time, also, the veterans of pharmacy remind us of changed hours and conditions of employment. Recently I have been made aware that the field of advertising has not stood still. It was natural that photography in black and white, and more recently in colour, should have been called in to assist the cleverly written inducements to the public to invest their money wisely. A reminder of the changes that have taken place comes in a letter from a reader of THE CHEMIST AND DRUGGIST as far away as Rhodesia. He specifically mentions a front-page illustration in a recent issue, reference to which discloses a young lady in what can only be described as a modern bathing costume. My correspondent refers to the sensation caused in his pharmacy when the issue arrived, and he speculates on the consternation which the same advertisement would have created had it appeared in his early days in 1898. He also wonders "if the lady in question is entering into competition with Diana Dors and Marilyn Monroe!" (For the benefit of the uninitiated, inquiry has elicited that the Misses Dors and Monroe are young ladies who have achieved a certain prominence in what used to be known as the bioscope.)

BRITISH PHARMACEUTICAL CONFERENCE, 1956

CLOSING SESSION

Invitation accepted to meet in Bristol in 1957

THE closing session of the Conference was held at University College, Dublin, on September 7, Professor Kenneth Bullock (chairman) presiding.

The first business was a vote of thanks to the Local Committee. It was proposed by MR. P. G. FLOOD, M.P.S., London (pharmaceutical representative on the London County Council). Mr. Flood, who opened in Gaelic and continued in English, thanked the Local Committee and its chairman (Mr. P. F. McGrath) for the wonderful work they had done during the week "in this fair city of Dublin," and for the courageous way in which they had carried out their very responsible task. He concluded with a verse in Gaelic:—

Do b'aoibhinn tracha liom bheith
fiac ar lamh,
No ag iasacht i lar na Liffey
Sul ar cuaidh ar glas, is go cruidh
ar mo chas,
I geathair cil breagh Baile Cliath.
(My five hundred goodbyes to you.
It was pleasant to be wandering, or
fishing in the middle of the Liffey. My
heart is heavy at parting from you,
the fair bright city of Dublin.)

MR. F. H. OLIVER (principal, Sunderland Technical College), seconding, paid tribute to the Local Committee for the excellence of the arrangements and their wonderful hospitality. Before putting the vote THE CHAIRMAN presented Mr. McGrath with a gavel for the Local Committee as a memento of the Conference meeting. The vote was then carried with applause. MR. McGRATH, receiving the gavel on behalf of the Committee, said he was fearful for future presidents of the Pharmaceutical Society who might have to call to order a meeting of Irishmen with a British gavel (laughter and applause). He realised, he said, that in running a Conference it was essential to pick a good team, and the real pride he took was in the fact that in Dublin they had such a good team, the work of which was made easy by the way in which everyone co-operated.

Sound Financial Position

MR. H. TREVES BROWN (treasurer of the Conference) then presented his report and moved its adoption, which was formally seconded by MR. GRANVILLE SHAW (president of the Conference) and carried. It reported a total expenditure for the year of £15, leaving £72 to carry forward. With that surplus, the accumulated fund amounted to £1,871 on December 31, 1955, and the local committee fund to £250. Expenditure of £928 (including £416 paid by the Pharmaceutical Society) was included in the financial statement of the Pharmaceutical Society.

MR. H. G. ROLFE (joint general secretary of the Conference) presented the report of the Conference Executive,



Dr. Frank Hartley (next year's chairman) thanks Conference members for the confidence they have shown in the Executive.

which showed that, in addition to members, honorary members and students of the Pharmaceutical Society, and members of the Pharmaceutical Society of Northern Ireland, the Conference included sixty-six members elected by the Executive. Thirty-six papers had been submitted and thirty-two accepted for presentation to the Conference. Agreement had been reached with the Society whereby the Branch Representatives' meeting had been replaced by discussions of subjects of a professional nature on one whole day or two half days, and delegates would be sent by the Society from branches to the Conference as a whole. The following officers and members of the Executive were nominated for 1956-57. Chairman: Frank Hartley; Vice-chairmen: R. R. Bennett, H. Deane, H. Humphreys Jones, T. E. Wallis, H. Brindle, B. A. Bull, Norman Evers, A. D. Powell, H. Berry, H. B. Mackie, G. R. Boyes, H. Davis, J. P. Todd and K. Bullock; Honorary Treasurer: H. Treves Brown; Honorary General Secretaries: H. G. Rolfe and E. F. Hersant. Other Members of Executive: K. R. Capper, J. W. Fairbairn, G. E. Foster, D. C. Garratt, J. B. Lloyd, W. Mitchell. The Executive reported with deep regret the death of Dr. F. W. Crossley-Holland, general secretary, 1923-27; treasurer, 1927-34, and chairman in 1935.

MR. J. C. HANBURY (chairman, Allen & Hanburys, Ltd.) proposing adoption of the report, of the election of officers, and of the nomination as chairman for the year of Dr. Frank Hartley, said that Dr. Hartley had been most assiduous in his attendance at and contributions to the science sessions of the Conference over a great many years. Mr. Hanbury said he had

been amazed at Dr. Hartley's erudition and versatility, extending to practically every pharmaceutical subject which came up for discussion. It was too early to express an opinion on the value of the professional sessions, held for the first time at that year's Conference, but on balance they appeared successful, and likely to form a useful pattern for the future. MR. W. T. WING (chief pharmacist, Newcastle General Hospital) seconded, and the report was adopted.

DR. FRANK HARTLEY, on behalf of the officers and members of the Executive, thanked the Conference for their election for the year. He spoke of "the magnificent leadership" they had had from Professor Bullock during the week, and on his own election as chairman said he was conscious of his inadequacy for the task but would, with their help, do all he could at Bristol in 1957.

MR. K. J. ADAMS, as chairman of the Bristol Branch of the Pharmaceutical Society, extended the official invitation to the Conference to meet in that city next year.

MR. H. H. CAMPBELL, Edinburgh, moved and DR. J. C. PARKINSON (principal of the school of pharmacy, Brighton Technical College) seconded a motion to accept the invitation, and it was carried with enthusiasm.

The meeting passed with acclamation a vote of thanks to Professor Bullock for his conduct as chairman of the Conference. It was moved by DR. E. SHOTTON (school of pharmacy, university of London), and seconded by MR. C. E. TURNER (secretary, North Staffordshire Branch of the Pharmaceutical Society). Replying to the vote of thanks PROFESSOR BULLOCK paid tribute to Mr. Granville Shaw (presi-

dent of the Conference) for the support he had given him throughout the week, to the joint general secretaries for their valued help and to Miss Whiteside.

Garden Party

UNFORTUNATE weather conditions caused the cancellation of some of the sports features on September 6 but did not deter many of the guests from attending a garden party held at the Zoological Gardens, Phoenix Park. The attendance was, in fact, greater than had been expected, since the cancellation of the tennis and bowls fixtures caused an influx which swelled the numbers at the Gardens to about six

hundred. Though the tickets stated "For Ladies," the party also attracted a large masculine interest. Among the guests were Sir Hugh Linstead and Mr. Granville Shaw. All were received by Mr. D. B. GILMORE (president of the council of the Zoological Society). A few of the ladies had braved the elements in the gay dresses and picture hats appropriate to a garden party, but the majority were in coats and mackintoshes or sheltering under umbrellas as they made their way to the giraffe and lion houses, fed the bears, or watched the tricks of the elephants. Music was provided by a band of boys of Artane School, conducted by Mr. John Hickey.

Fashion Show

ON the morning of September 6 many lady members of the Conference attended a fashion show at a Dublin department store. The show was presented by the Charles Ward-Mills Salon of Fashion, and five attractive models displayed to the audience the new autumn fashions in suits, coats, and day, cocktail and evening dresses. The men were not forgotten, and those who were not occupied in touring Guinness' brewery, or more earnestly engaged in scientific discussion at University College, were able to see examples of new autumn suits and overcoats in Donegal tweeds.

CONFERENCE BALL

Dances, cabaret and presentations at a record gathering

DUBLIN had not seen for many years a function of such magnitude, colour and gaiety as the Conference ball, which brought the Conference to a close on September 7. Multi-hued Tostal festival lanterns on the walls, hanging baskets of flowers, decorative shields of the Provinces and cities of Ireland, and a profusion of flowers gave the right fiesta setting for a distinguished and international gathering at which some of the Scots and the Nigerian delegate were wearing distinctive national dress. The dance floor had been specially laid and Jimmy Dunny's band from Newbridge, Kildare, performed excellently.

President Leads Off

The president of the Conference (Mr. Granville Shaw) and Mrs. Shaw, and the chairman of the Conference (Professor Kenneth Bullock) and Mrs. Bullock were in line to receive the guests as they arrived, and to lead off in the opening dance—a Viennese Waltz. The dance programme had something to please everybody. English, Irish and Welsh joined the Scottish visitors in the Gay Gordons. The programme included also the Dashing White Sergeant, in tribute to England, and rollicking traditional Irish dances such as the Walls of Limerick and the Siege of Ennis. As a cabaret intermission a troupe of kilted Irish dancers provided some fine exhibitions of Irish jigs and reels. Near midnight there was a break during which Alderman Louis Cashman came forward to receive the Edmund White trophy he had won at the golf outing. Mr. Frank McGrath, as chairman of the Local Committee, was given a suitably inscribed silver cigarette casket, and Mr. Michael Costello, as vice-chairman, and Mrs. Costello, as chairman of the Ladies' Committee, were presented with a silver salver. Mrs. Costello had previously presented bouquets of carnations to Mrs. Bullock and Mrs. Shaw. Mr. Donal Kennelly (Conference local secretary) and his lady were given a silver coffee service, and Mr. Hugh Corrigan (treasurer) and Mrs. Corrigan an embossed entrée dish. In his turn, Mr. McGrath, on behalf of the Pharmaceutical Society of Ireland, presented Professor and Mrs. Bullock with a set of wine glasses in Waterford glass. "We have been highly honoured," said Presi-

dent McGrath, "that the British Pharmaceutical Conference came to Ireland this year." Finally, Professor Bullock invested the incoming chairman of the Conference (Dr. Frank Hartley) with the medallion of office, and himself received the past-chairman's badge. In honour of their guests Mr. McGrath then called on the band to play the British National Anthem.

The dance went on into the early hours of Saturday morning. About 1,500 people are estimated to have been present, making the function the largest of its kind held in Dublin for many decades.

To the strains of the Irish National Anthem ended one of the largest and certainly most memorable of British Pharmaceutical Conferences.

DRUG AND DYESTUFF DEVELOPMENTS

Freeze-dried B.C.G. Vaccine.—Glaxo Laboratories, Ltd., Greenford, Middlesex, announce that they have commenced large-scale production of freeze-dried B.C.G. vaccine, which is being

at least twelve months with full activity maintained (the stability of fluid B.C.G. vaccine is of the order of fourteen days). The output of freeze-dried B.C.G. vaccine is being exported.

Now Synthesised.—Ciba Laboratories, Ltd., Horsham, Sussex, announce that investigations undertaken in the company's research laboratories into possible methods of synthesising gramicidin S have yielded their first results of practical significance. Drs. R. Schwyzer and P. Sieber of the company's scientific division have reported (*Angewandte Chemie*, 1956, **68**, 518) the successful synthesis of the antibiotic, which was first isolated in Russia in 1942 from a strain of *Bacillus brevis* found in that country, and has since been used as a wound antiseptic and regenerative agent. Its constitution is that of a cyclic peptide (i.e., it has a 30-membered ring built up from ten amino-acids).



Cutting off ampoules from the second freeze drier during the final stage of production of B.C.G. vaccine by Glaxo Laboratories, Ltd.

produced in part of a new £400,000 biological research and production block recently completed at Greenford. Messrs. Glaxo claim to be the only pharmaceutical house in Europe making B.C.G. vaccine on a full-production scale. The advantage of the freeze-dried product is that it can be tested for biological efficacy before issue (testing in that way has not been possible with the fluid vaccine hitherto in use in many parts of the world). The freeze-dried vaccine has the additional advantage that it may be stored for

the dye-stuffs division of Imperial Chemical Industries, Ltd., has introduced the first three members of a new range of dyestuffs—the Procion dyestuffs—in yellow, brilliant red, and blue. The makers claim that the Procion dyestuffs are dyes of an entirely novel type and the first to be introduced to the dyeing trade that achieve their high wet fastness by formation of a chemical bond between dye and fibre. The reaction between the Procion dyestuffs and cellulose fibres proceeds rapidly under alkaline conditions, and that fact enables them to be applied by an entirely novel cold dyeing technique in conventional dyeing machinery with a consequent improvement in control over the process, a saving in steam and an improvement in dyehouse conditions.



FROM THE NORTH : A few of the large contingent of Conference members from the Six Counties. Left to right, seated, Mrs. W. Moffett; Mrs. Jack Caldwell; Mrs. and Mr. Fred Storey, C.B.E.; Mrs. W. H. Boyd. Standing : Mrs. and Mr. M. C. Mooney; Messrs. W. Moffett, J. A. Brown, Jack Caldwell and W. H. Boyd.



PRESENTATION : Mrs. Kenneth Bullock, wife of the Conference chairman (centre) makes a presentation on behalf of the Executive to Mr. P. F. McGrath (chairman of the Conference Local Committee and president, Pharmaceutical Society of Ireland).

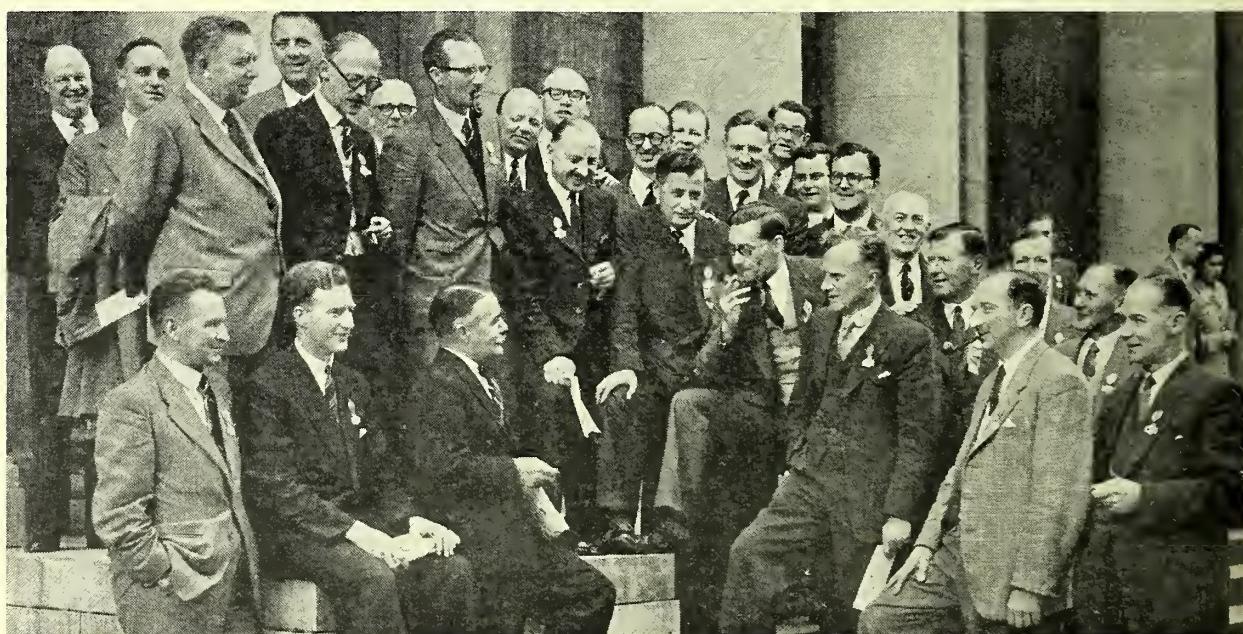


HOSPITAL PHARMACISTS : Many members of the Guild of Public Pharmacists made the crossing for the Conference. They are here seen grouped in front of the University building.



LINK WITH 1929 : Seen here with Mrs. Brady, Mr. Phil Brady was secretary of the Conference Local Committee at its previous meeting in Dublin in 1929 and a member of the 1956 Conference Local Committee.

BELOW : MEDICAL REPRESENTATIVES : Some of the many representatives of wholesalers and manufacturers who attended the Conference.





PRESIDENT AND EX-PRESIDENTS : No less than nine ex-presidents of the Pharmaceutical Society of Ireland attended the Conference ball on September 7. They are here seen with Mr. P. F. McGrath, the present president (centre of front row).



AT THE FIRST TEE : Mr. J. A. Brown, Belfast, with Mr. J. T. Foley, Dublin, at the first tee.



TROPHY WINNER : Alderman Cashman, winner of the golf competition on September 7, receives the Edmund White trophy from Mrs. Bullock.

CONFERENCE GROUPS AND SCENES



LIVERPUDLIANS : Some of the Liverpool pharmacists who attended the Conference.



RESPONSIBLE FOR CATERING : Mr. T. G. Lawlor, Naas (a director of the catering company which provided for banquet and ball), with Mr. T. B. O'Sullivan (chairman of the banqueting committee).

Below : DUBLIN "REPS" : Dublin representatives of wholesalers and manufacturers pose for a photograph on the University steps.



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TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

Reconstruction as Ground for Possession

UNDER Part II of the Landlord and Tenant Act, 1954, a tenant of shop or business premises may not be granted an extension of tenancy if his landlord requires possession of the premises for his own purposes, or in order to demolish or reconstruct the property or a substantial part of it.

A landlord may not, however, rely on the objection that he wants possession for his own purposes (for purposes of his own business for instance) if he became the tenant's landlord within a period of five years prior to the date of expiry of the tenancy. In a case that came before the courts in 1955 the landlords alleged that they required possession not only for their own occupation but also because they intended to reconstruct the premises. Since they had acquired the premises within the five-year period, they were precluded from relying on the first ground. The court held that they were not entitled to possession on the second. The argument was that, if the landlord required possession principally because he wanted the property for his own occupation, but was precluded, by reason of the five-year time limit, from relying on that ground, the fact that he also required possession in order to demolish or reconstruct the premises (for his own occupation) did not entitle him to refuse the tenant a new tenancy.

The court of appeal has indicated in a more recent case that no such principle is to be regarded as having been laid down. The decision in the earlier case turned on the fact that work which the landlords proposed to execute was not substantial. In other words, a landlord requiring possession for his own purposes was not to be allowed to circumvent, by putting forward a colourable purpose, the requirement of ownership for a minimum period of five years prior to termination of the tenancy.

If, on the other hand, the landlord, under the five-year rule, could not obtain possession, he was still entitled to rely on the ground of demolition or reconstruction if that intention was a genuine one that would be carried out at once on the termination of the tenancy. Lord Justice Denning pointed out that the requirements of the Act must be fully satisfied. The intention to reconstruct had to be genuine and not colourable. It had to be firm and settled and not likely to be changed. The Act made no provision for the case where the landlord subsequently, and *bona fide*, altered his intention, whether to occupy the premises

himself or to demolish or reconstruct them. The reconstruction must be so substantial that it could not be thought to be a device to get possession; and the work had to be so extensive as to render possession of the premises necessary in order to execute it. The Act could not be evaded by buying up a property and putting in a new shopfront.

Onward from Galen

A CURRENT CAUSERIE

CATHOLIC pharmacists, who are kept in touch with events and topics of special interest to themselves by a publication *The Catholic Pharmacist*, of which the editor is Mr. D. C. Higgins, F.P.S., 3 Eversley Road, Surbiton, Surrey, will be interested to learn of a projected improvement in the format of the paper. No. 2 of Volume 10 (taking on from the *Pharmaceutical Guardian*, the official organ of the Catholic Pharmaceutical Guild, which ceased publication some time ago) has just appeared. It has a page size of 8½ x 5½ in., and is limited to four pages. The hope is that soon an improved *Catholic Pharmacist* will appear as a quarterly journal.



THE coloured plate of a jar of Conf. Alkermes in the C. & D. Annual Special Issue, June 30, appeared over a note on the composition of the confection. Dr. Murray, whose jar it was, sends two extracts from the "Select Observations on English Bodies" of Dr. John Hall, the son-in-law of Shakespeare, in which he mentions Conf. Alkerm. as an ingredient of medicines he prescribed for his patients.

"Observation LXXII" reads:

Mrs. Finnes being delivered of her third child, the third day fell into a burning fever, with thirst and great weakness . . . she fell into a Hydropick Tumor with swelling of the right thigh and leg. . . . I was sent for, when being come, perceiving it hard, I conceived it to be a Scorbutic Dropsey. . . . At bed-time she took this: Rx Pul. Pan. rub. 3 t.d. C.C. Praep. 9*oz* Confect. Alkerm. cum Syr. Limon. f. Bol. That night she was in a fine moist sweat. . . .

The second observation referred to, No. XLVIII, records that:

Mrs. Grace Court, wife to my apothecary aged 27 being grievously afflicted with a burning fever, and that continually, pain in the loins, small bleeding at the nose, pain in the head with small delirium, was cured as follows. . . . The same day I gave the following cordial: Rx burnt Hartshorn, spec. liberant pul. Pannon rub. Confect Alkerm. a 9*oz* Conserve of Barberries 5*lb*. Of this she took the quantity of a bean every three hours. . . .

PASS THE PLASTER IRON

By J. J. HAYTON

*AT the risk of being accused
Of merely being cynical
Or of being roundly abused
By those to whom the pinnacle
Of our calling is contained
In the "ab initio" trained,
—We must say that those who cry
"It will never come again,
The dispenser's art will die!"
—Are often those who complain
When a script has something in it
That takes more than a minute!*

INFORMATION WANTED

The Editor would appreciate information about suppliers of the following items:

PERK

HEART SAFE aspirins

ARSOHEMOGEN

Kenwood Laboratories (address)



The

CHEMIST AND DRUGGIST DAILY BULLETIN

Pictures and reports of events and discussions at the ninety-third meeting of the British Pharmaceutical Conference Dublin, 1956.

WEDNESDAY, SEPTEMBER 5

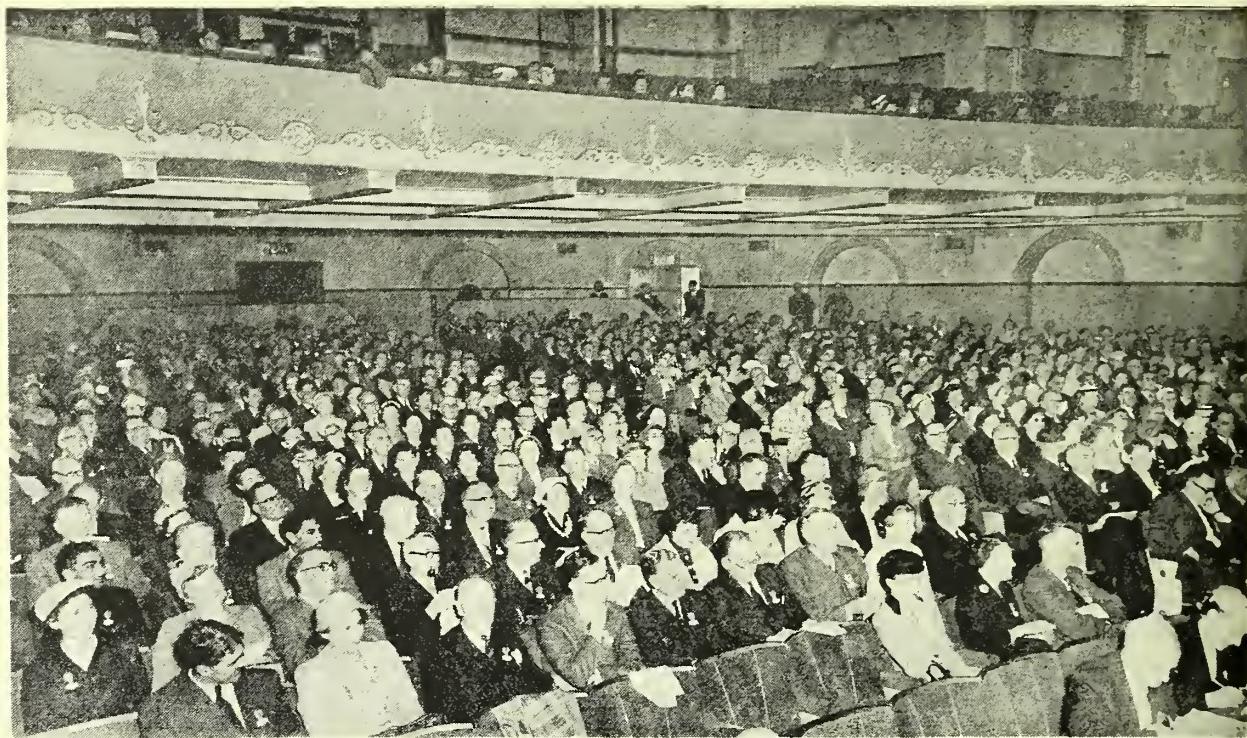


As issued to Conference members in Dublin and to pharmacists in the Republic of Ireland and in Northern Ireland.

OFFICIAL ORGAN OF THE PHARMACEUTICAL SOCIETY OF IRELAND



SPEEDING THE SIGHTSEERS. Scene as Conference members await the coaches for a tour of the City of Dublin.



EVERYBODY WAS THERE: Always the best attended assembly of Conference week, the Opening Session attracted more members than our photographer could get into one picture.

STATE RECEPTION A Thousand Guests at the Gresham

THE State Reception at the Aberdeen Hall of the Gresham Hotel on September 3 was a brilliant social affair. At the entrance to the Hall the Minister for Local Government (Mr. Patrick O'Donnell) and Mrs. R. J. Kelly, with Mr. Patrick F. McGrath (President of the Pharmaceutical Society of Ireland), and the President's daughter (Mrs. T. Butler), received the guests. Seldom has even Dublin's Gresham had such a large number at an official reception. The thousand and more guests not only filled the Aberdeen Hall to its limits, but overflowed into the adjoining salons. Every kind of accent was to be heard as English, Scottish and Irish pharmacists and their ladies moved around. From the Gresham's orchestra the programme of music was equally as varied; and English hunting tunes, as well as "The Bonnie, Bonnie Banks of Loch Lomond" and other Scottish tunes were mingled with Irish airs in compliment to the cross-Channel visitors. An excellent buffet service was in operation from tables all round the hall.

While many of the notabilities were distinguished by their decorations, the Scottish visitors were particularly prominent and much admired in their dress kilts. The Aberdonians made a fine show, especially tall Mr. R. J. Cowie in his green Mackenzie tartan and Mr. Walter C. D. Bain in the rich scarlet Stuart colours.

In addition to the President of the Pharmaceutical Society of Great Britain (Mr. Granville Shaw) no less than four

former British presidents were present. They were Mr. Harry Steinman, Mr. Eric Brocklehurst, Mr. T. Heseltine, and Mr. John Tristram. Vice-president Mr. Donald Hudson and Sir Hugh and Lady Linstead were other notables present. It was a great occasion for the ladies,

and the fashion display of evening gowns gave just the right gay and festively colourful setting to the function.

The reception began punctually at 8 o'clock, but by 9 o'clock the younger fraternity were disappearing from the Gresham and heading towards Clery's



A CHANGE FROM PARLIAMENTARY PAPERS. Sir Hugh Linstead, O.B.E., M.P., and Lady Linstead find nothing much to worry about in the Conference programme.

ballroom, further along O'Connell Street, for the dancing. By 10 o'clock the exodus was almost complete. The buzz and hum of conversation began to wane; and even the older folk amongst the delegates joined in the trek past Nelson Pillar to Clery's, if not to dance at least

to watch the young people enjoying themselves.

Both for the State Reception and the dance the arrangements were excellent, and everything went off smoothly, making for a happy and pleasant first night's relaxation in Dublin.

According to the reckoning of the Gresham catering manager, the buffet staff during the two hours' reception served 900 cups of tea, 900 cups of coffee, 700 cups of soup, 6,000 sandwiches, 1,000 lobster bouchés, 1,000 chicken and ham bouchés, and 2,500 savouries.

BIOCHEMICAL PRINCIPLES IN PHARMACY

CHAIRMAN'S ADDRESS CONCLUDED FROM THE CHEMIST AND DRUGGIST, SEPTEMBER 8, p. 250

Cell Architecture

When considering the long periods of time during which dried bacterial spores can remain viable, as shown by their capacity to germinate under favourable conditions, one is tempted to reflect on the nature of life. It has been said that "Solid matter is not compatible with life". Yet bacterial spores dried and stored over P_2O_5 seem to be very much of the nature of "solid matter". In what way are they "living"? They seem to remain as it were in suspended animation. If the synthetic and metabolic processes are suspended so are those of lysis and dissolution. In what ways do dry "living" spores differ from, say, the "dead" powder obtained by grinding such spores in a mill? The living spores have an internal structure or organisation; in the dead powder that structure has been destroyed though the units remain, since many of the original enzyme activities persist. For a long time the importance of structure in protoplasm and cellular organisation has been realised and studied. The possibility of the formation of particular enzymes in the cell has been linked to specific genes and in some cases the ratio of one enzyme for one gene has been suggested. It is becoming increasingly probable that the arrangement of the enzymes in the cell is important. They must act on substrates in a given order, and to do that must occupy a particular location, relative to each other in space, i.e., a cellular architecture is necessary. Here then is a possible explanation of the difference between dried living cells and the powder produced by grinding them.

Recent advances have been made possible by the development of (1) electron microscopy; (2) submicrochemical reactions applied to histological preparations whereby chemicals and enzymes may be located in individual cells or even in specific parts of cells; (3) cell fractionation involving the partial disruption of cells followed by separation by high speed centrifugation of various constituents or organelles such as nuclei, mitochondria, chromosomes, and, of course, supernatant clear cytoplasm or hyaloplasm. The various fractions are then examined separately for chemical composition and enzyme content. None of the three methods is beyond criticism but, when the results of two or three methods are confirmatory, the conclusion has at least a high degree of probability. It has been shown that certain enzymes are associated specifically with certain morphological structures. On the other hand, glycolytic enzymes have been found in cell nuclei isolated by three different procedures and it seems reason-

able to suppose that those enzymes are true nuclear constituents. Clearly the normal metabolic cycles take place in morphologically different structures of the cells. It would appear likely that the substrates, intermediates, and end-products follow definite pathways within the cells. Such an idea is reminiscent of the way in which the food vacuoles in paramecium are carried by a streaming of the ectoplasm along a predetermined route within that monacellular organism.



Mr. P. McAuliffe,
Chairman, Transport Committee.

Sometimes enzymes are associated with the surfaces of cells. Acetylcholinesterase has been found to be concentrated in the sheath of the giant fibre of the squid⁶³, practically none of the enzyme being found in the axoplasm. That observation may be connected with the conduction of nerve-action currents along the surface of the fibres. It has been suggested that the occurrence of phosphatases at the surface of the cells may be necessary to hydrolyse organic phosphates so that the organic fragment can be absorbed and metabolised. Alkaline phosphatase occurs in high concentration in the nuclear membrane of certain cells⁶⁴. Whether it plays a role in the transfer of metabolites from cytoplasm to nucleus or in the reverse direction is not yet established. Not only have cells an internal morphological structure but it is increasingly evident that the organelles themselves have a complex architecture. That has long been accepted for the nucleus. There is now increasing evidence that

the morphological similarities of the mitochondria of different tissues are paralleled by similarities in biochemical properties. It is not only in the cell organelles that structure is to be found. The temporally and spatially ordered coupling of energy upon the macromolecular lattices of protoplasm is at the core of most processes of cellular biology⁶⁵. It is with elemental units having definite and functional orientation in space that the molecules of drugs must combine. These considerations suggest a firm basis for work relating pharmacological activity to the conformational structure of the drugs. Papers on this subject are beginning to appear in pharmaceutical literature^{66 67}. I think that we are at the beginning of a series of investigations and researches into the relation between structure and the vital process of cells and cell-parts which will prove to be most fascinating and illuminating.

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1. Findlay, *Recent Advances in Chemotherapy*, 3rd Ed., Vol. 1, 1950, 1-7.
2. Gram, *Fortschr. Med.*, 1884, 2, 185.
3. Meitsch and Klarer, *Deutsches Reich Patent*, December 25, 1932, 607-537.
4. Domagk, *Dtsch. med. Wschr.*, 1935, 61, 250.

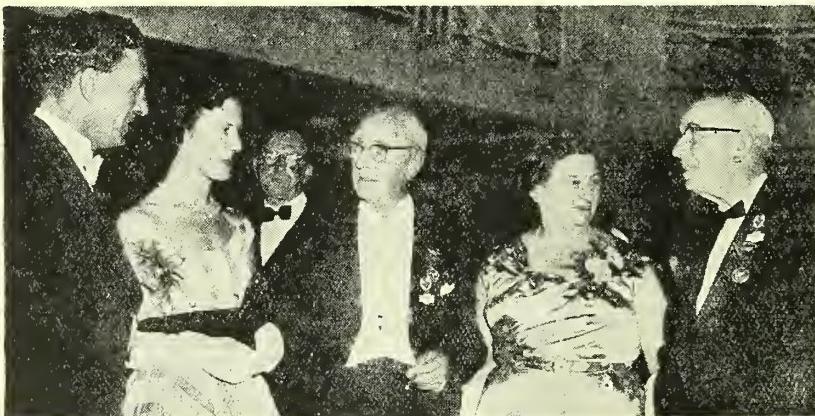
The remaining references are held over.



AT CLERY'S BALLROOM after the State Reception are Mr. D. J. Kennelly, Dalkey, Co. Dublin (secretary, Local Conference Committee), and Mrs. Kennelly.



A MINOR CONFERENCE? : Messrs. W. F. Patterson, Sheffield, C. Sillett, Tees-side, J. Gilliland, Durham, K. Wood, Sheffield, P. A. Dix, London, G. Baskerville, Norwich, and K. J. Steel, chatting together.



A NORTHERN IRELAND GROUP at the State reception. Included are Mrs. and Mr. F. J. Storey, Belfast (a former president, Pharmaceutical Society of Northern Ireland), and Mrs. Storey; and Mr. H. F. Moore (also a former president of the Northern Ireland Society).



SCOTTISH VISITORS WELCOMED : Mr. P. O'Donnell (Minister for Local Government) his sister-in-law Mrs. R. J. Kelly, Mr. P. F. McGrath (president, Pharmaceutical Society of Ireland) and his daughter Mrs. T. Butler, receiving Mr. and Mrs. W. C. D. Bain, Aberdeen.



(Above): CONFERENCE CHAIRMAN CONFER. Professor Kenneth Bullock with Mr. Granville (Conference President) and Mrs. Shaw. Mrs. E stands beside her husband.



HOSPITAL PHARMACISTS: Miss E. P. Butcher (president, Guild of Public Pharmacists from left), S. Powison, Beckenham (secretary).

AT THE STATE RECEPTION



RECEIVING GLASGOW GUESTS: Mr. P. J. Hill (Minister for Local Government), Mrs. R. J. P. F. McGrath, and Mrs. T. Butler welcome Mrs. G. Rattray, Glasgow.



(fourth from left), and Miss M. D. Smith, London secretary of the Guild, extreme right) in the group.



CHIEF INSPECTOR of the Pharmaceutical Society of Ireland, Mr. P. S. O'Briain, Dublin (third from left), with Mr. Eoin D. Leavy, Dundalk, Miss M. Woods, Dublin, and Miss R. Murphy, Dublin.



A WELSH CONTINGENT: Mr. and Mrs. H. W. Davies, and Mr. and Mrs. A. Evans, Cardiff, renew acquaintance.



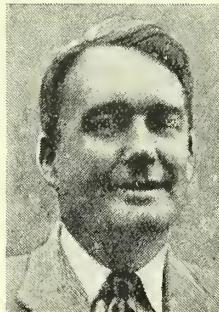
JUVENILE VISITORS: Marilyn and Clive, daughter and son of Mr. and Mrs. W. F. Wilkinson, being received.

CONFERENCE PERSONALITIES

MR. E. H. TINLEY, B.Sc., F.P.S., who is the co-author of a paper on the determination of binary mixtures by distribution measurements, has been a lecturer in pharmaceutical chemistry at the School of Pharmacy, Chelsea Polytechnic, London, S.W.3., for the past eighteen years. Mr. Tinley was apprenticed to Mr. B. C. Jukes, Odiham,

& Wilson, Ltd., Widnes, Lancs, 1943-46, and Evans Medical Supplies, Ltd., Runcorn, Ches, 1946-50, and as senior assistant to the public analyst at Carmarthen, 1950-54. He is at present employed as an analyst with Glaxo Laboratories, Ltd.

DR. B. A. MULLEY, B.Pharm., Ph.D., who is the co-author of a paper on non-ionic surface active agents is a lecturer in pharmaceutics at Chelsea Polytechnic. On leaving school, Dr. Mulley worked for a year with the Anglo-American Pharmaceutical Co., Croydon, studying part-time for the Inter B.Pharm. From 1949-51, he studied at Chelsea School of Pharmacy and obtained the external B.Pharm. degree in 1951. He became a demonstrator at the Chelsea School of Pharmacy, at the same time doing research work for the Ph.D. degree which he obtained in 1955.



Mr. E. H. Tinley

Basingstoke, Hants, and qualified from the Pharmaceutical Society's School of Pharmacy in Bloomsbury Square in 1939. He graduated B.Sc. special chemistry in 1944. He is interested in gardening. His wife is a pharmacist.

MR. N. J. HARPER, M.Sc., Ph.D., A.R.I.C., Ph.C.N.I., who is the co-author of a paper on analgesics and their antagonists, is a native of Belfast and a member of a family well-known in Irish pharmaceutical circles. He graduated with first class honours from Queen's University, Belfast, in 1945, and was also awarded a foundation studentship. He obtained his M.Sc. degree from that



Mr. N. J. Harper

University in 1947, and later the Ph.D. from London University. He has had teaching experience in the College of Technology, Belfast, and the Royal Technical College, Glasgow, and is at present a senior lecturer in pharmaceutical chemistry at the School of Pharmacy, Chelsea Polytechnic.

MR. JAMES IVOR PHILLIPS, F.R.I.C., who is the co-author of a paper dealing with the determination of benactyzine, was educated at Quarry Park High School, Liverpool, and afterwards at the Liverpool College of Technology, obtaining the A.R.I.C. in 1950 and the F.R.I.C. (Branch E) in 1954. He was formerly employed as an assistant analyst with Albright

& Wilson, Ltd., Widnes, Lancs, 1943-46, and Evans Medical Supplies, Ltd., Runcorn, Ches, 1946-50, and as senior assistant to the public analyst at Carmarthen, 1950-54. He is at present employed as an analyst with Glaxo Laboratories, Ltd.

microbiological section of the research station of Vitamins, Ltd., she went to the School of Pharmacy, Chelsea Polytechnic, from where she gained the B.Pharm. degree of London University in 1955. On gaining her degree, she was awarded a research assistantship in pharmaceutical chemistry at Chelsea Polytechnic where she is working for the degree of Ph.D. under the direction of Dr. A. H. Beckett. Her interests include sport of all kinds, particularly tennis and squash rackets, and she is also a keen philatelist.

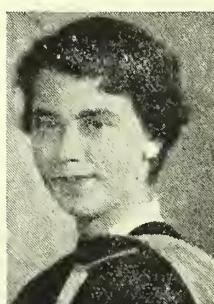
DR. E. WINDLE TAYLOR, M.A., M.D., B.Ch. (Cantab.), M.R.C.S., L.R.C.P., D.P.H., who is the co-author of a symposium session paper on potable water, is director of water examination to the Metropolitan Water Board, London.

Dr. Windle Taylor was educated at Chesterfield Grammar School and Cambridge University and received his clinical training at St. George's Hospital, London, W.1., where he won special



Mrs. M. Costello,
Chairman, Ladies' Committee.

MISS ANNE E. ROBINSON, B.Pharm., who is the co-author of a paper on the reactions of anti-bacterials with bacteria, was educated at Queen Anne's School, Caversham, after which she studied at



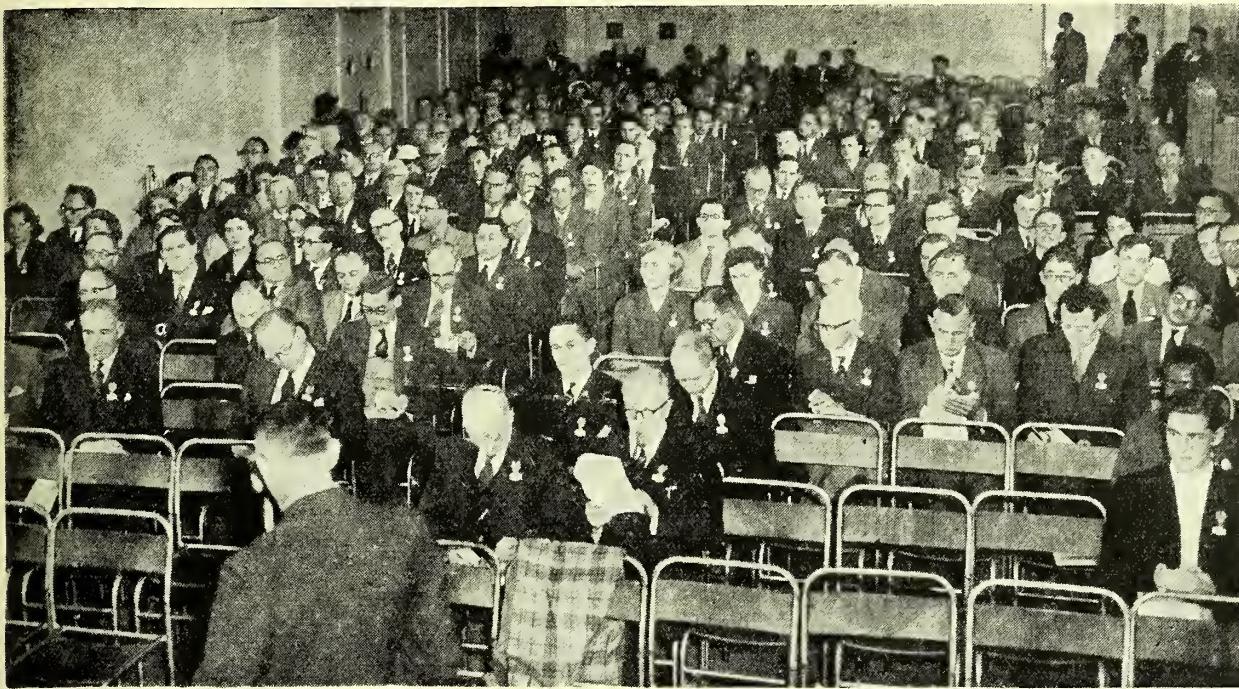
Miss Anne E. Robinson

Croydon Polytechnic for the Intermediate examination for the Bachelor of Pharmacy degree. After a year in the



Dr. E. Windle Taylor

prizes for bacteriology, medicine and surgery. In 1935, he was awarded the Chadwick prize for first place in the examination for the Diploma of Public Health at the London School of Hygiene and Tropical Medicine. He is also a Barrister-at-Law. He joined the Metropolitan Water Board in 1935 as research bacteriologist and in 1938 was appointed senior bacteriological assistant and bacteriological research assistant, his chief duties being the management of the bacteriological section of the water examination department during the 1939-45 war. In 1945 he became deputy director of water examination, and in 1954 he was appointed to his present post. Dr. Windle Taylor has recently been the United Kingdom representative on a study group of the European office of the World Health Organisation for standardisation of characteristics of water quality and methods of examination. He is a member of several scientific societies and the author of a number of publications dealing with the examination and treatment of water supplies. He is a past president of the society for Water Treatment and Examination and recently he jointly received the Houston Medal awarded by the Institution of Water Engineers, for work on the application of membrane filtration to the bacteriological analysis of water.



FIRST SCIENCE SESSION : Ranks may thin later but members attend in good number to give the science sessions a send-off. The scene in Newman Hall on Monday morning.

SCIENCE SESSIONS

THE CHAIRMAN opened the Science Sessions on Monday afternoon. He called on MR. J. COCKTON to read the first paper.

Abstracts only are given of the papers

Resistance of Crystalline Substances to Gas Sterilisation

C. F. ABBOTT, J. COCKTON AND W. JONES

EXPERIMENTS are recorded which are designed to show that viable spores can survive within crystals and that such inclusion affects the sterilising ability of gaseous agents by preventing contact between organisms and agent. An initial series of experiments was planned to establish methods for preparation, contamination and sterilisation of crystals. Crystals of Rochelle salt which when tested did not show the presence of viable organisms on any occasion had their exterior surfaces contaminated with spores of *B. subtilis*.

The concentration of formaldehyde in the air was about 2.4 mgm. per litre. Contaminated crystals were exposed to those conditions and tested for the presence of viable spores by solution in broth and incubation. When no growth took place, inoculation with a *B. subtilis* spore suspension, followed by incubation, produced growth, showing the absence of bacteriostasis due to residual formaldehyde. After five hours' exposure the crystals were sterile, and a six-hour exposure period was therefore used in subsequent experiments as a "standard sterilisation time".

Sterile solution of Rochelle salt were prepared and cooled to about 50° C. Diluted suspensions of *B. subtilis* spores (freeze dried) in water, were added to give concentrations of 10^6 gm. of solution. The solutions were then allowed to crystallise under aseptic



FIRST SCIENCE PAPER : Reading the first paper at the science session at U.C.D. is Mr. J. Cockton, Manchester.

conditions. To ensure that there was contamination of the crystals as distinct from the mother liquor, the individual crystals from weighted groups of ten were dissolved in sterile water, and suitable dilutions prepared in agar pour plates. It was found that the contamination varied between 400-700 organisms/gm. of crystal.

Similar weights of such "internally contaminated" crystals and externally contaminated crystals (as control) were exposed to air containing formaldehyde for the "standard sterilisation time". Ten crystals were taken from each chamber, and tested by dissolving in

broth and incubating. A series of eleven experiments with five batches of crystals were performed. The results showed a difference between the ability of formaldehyde to sterilise crystals merely surface contaminated, and those crystallised from a contaminated liquor. The suggestion is made that the spores in the latter instances are protected from contact with the gas by inclusion within the crystal mass. Another experiment, using groups of graded crystals, supported the conclusion drawn from the preceding experiment. The majority of the contamination associated with crystals from a contaminated liquor was on the surface, and the amount of contamination, both internal and external, did not vary greatly with crystal size, provided that the conditions of growth were the same in each case.

The more rapidly a crystal is grown the more likely it is to contain inclusions of impurities. If that applies equally to inclusions of viable spores the chances of such inclusion taking place in a precipitation process typical of manufacturing practice are increased. Experiments are described which show the differences found by crystallisation from the same liquor by (a) normal growth, and (b) a precipitation process. The results show that rapid crystal growth from bacterially contaminated liquors increased the risk of internal contamination of the crystals. Experiments were conducted to ascertain the degree of contamination in the final product, knowing the actual degree of contamination in the mother liquors.

The number of bacteria surviving in samples of Rochelle salt crystals and crystalline powder prepared from contaminated mother liquor was investigated after a period of storage at laboratory temperature. In all tests the samples

were exposed to gas before making the viable count. Both samples were still heavily contaminated at the end of the storage period.

To confirm the phenomenon of viable spore inclusion in crystalline materials the use of ethylene oxide as an alternative gas to formaldehyde was investigated. While the maximum period of exposure was insufficient to sterilise surface-contaminated material, there was a reduction in the viable count. With both the large crystals and the crystalline powder prepared from contaminated mother liquor, the number of viable organisms/gm. remained high, providing further evidence that viable spores are included in such materials.

From the Department of Pharmacy, Imperial Chemical (Pharmaceuticals) Ltd., Hexagon House, Blackley, Manchester, 9.

Discussion

THE CHAIRMAN asked whether the authors had measured the resistance of *B. subtilis* spores to formaldehyde. Had they found any evidence that formaldehyde was taken up on the surface of the crystals?

Dr. W. MITCHELL, London, asked where were the spores? Did the authors consider that the organisms, or some of them, were actually sealed within the crystal, and so were not accessible to the sterilising gas?

MR. HUTCHINSON, Oxford, said that as a worker at Harwell he was interested in sterilisation using X-rays. When using those against *B. subtilis* 2,000 mps. were useful, but more were necessary for spores in aqueous solutions.

MR. MYERS, Bradford, asked whether the inclusion of bacteria in crystals had any effect on the poor results sometimes obtained in sterilising urine from patients with calculi.

MR. COCKTON, replying, said they had not measured the resistance of the spores to formaldehyde. They had found no evidence of absorption of formaldehyde on the crystals. The location of the spores was a matter for the expert



A GROUP FROM GLASGOW. Included are Mr. and Mrs. R. B. Birrell, Mr. and Mrs. W. Peebles, and Mrs. J. P. Todd, wife of Professor Todd (1955 Conference chairman).

crystallographer. They had tried to find the exact position by dissolving away the face of the crystal using ethanol/formaldehyde liquor. They had dissolved away half the crystal and still found viable spores. An electromicrograph suggested that the spores were hidden in the matrix of the crystal. Mr. Cockton saw no reason why spores should not be contained in urinary calculi.

The second paper, which was read by MR. B. A. WILLS, was:—

Reproducibility of Extinction-time Estimates

III. Studies of Suspensions of Test Organisms

A. M. COOK, K. J. STEEL and B. A. WILLS.

VARIATIONS in the resistance during storage of suspensions or cultures of test

organisms used in evaluating bactericides have been investigated. The bacteriostatic resistance of the organisms to several bacteriostats were determined initially, and after three months' storage, by inoculating agar plates containing various strengths of the bacteriostats with drops of the suspensions.

The survival of several different bacterial species in aqueous suspensions stored at 10° C. and at room temperatures was compared. *Bact. coli* probably suffered less change in sensitivity to bacteriostats than the other organisms tested. Changes in viability and extinction times to phenol of washed and unwashed suspensions of *Bact. coli* and of washed specimens of *Staph. aureus* have been measured. Loss of viability and fall in extinction times were roughly parallel. They were dependent on storage temperature and influenced by the type of container used. Stored suspensions of *Bact. coli* at 4° and 10° C. was found to give consistent extinction times to phenol over periods of two or three months. Changes in viability occur after short periods of storage. Stored suspensions that are required to have a constant viability may be kept for no more than a few days.

It was shown that *Bact. coli* surviving in the suspension was able to increase in viability when suspended in its own ambient fluid, a filtrate of fluid, or in distilled water. It is considered that the increase in viability is probably a process of growth, by which bacteria which die in the suspension are able to provide nutrient for use by the surviving organisms. The survival rate is much decreased by either lack of oxygen or concentration of carbon dioxide and is dependent on temperature. Microscopic examination of stored suspensions did not show definite resting forms of *Bact. coli*.

From the Department of Pharmaceutics, School of Pharmacy, University of London.

(To be Continued)



BUSINESS COLLEAGUES AND THEIR LADIES: A group of associates from the Evans Medical organisation: Mr. P. Twohig, Dublin; Mr. Denver Rees, West Kirby, Liverpool; Mr. D. F. Jones, Swansea; Mrs. Rees; Mrs. Jones; Mrs. and Mr. A. D. Morgan, Cardiff.

The



CHEMIST AND DRUGGIST

DAILY BULLETIN

Pictures and reports of events and discussions at the ninety-third meeting of the British Pharmaceutical Conference Dublin, 1956.

THURSDAY, SEPTEMBER 6

OFFICIAL ORGAN OF THE PHARMACEUTICAL SOCIETY OF IRELAND



As issued to Conference members in Dublin and to pharmacists in the Republic of Ireland and in Northern Ireland.

CONFERENCE BANQUET

Colour and oratory at the University Great Hall

AT the banquet at University College, Dublin, on Tuesday night, upwards of 900 people were treated in the Great Hall to an excellent repast, served with surprising expedition for such an enormous gathering. The Hall itself presented a colourful and gala appearance, festooned as it was with hanging floral and lantern decorations. The main table, adorned with flowers and candelabra, had as its background centre-piece a large draped painting of the Conference badge. Along the tables one's eye was arrested by the emerald-green of the menu cards enhancing the multi-coloured masses of blooms. As the guests took their seats and throughout the banquet an orchestra played a varied programme of music. Mr. Dermot Troy, the Irish tenor, and a bevy of lady harpists, were the attractions of a later stage of the evening.

The decorative scheme of the Hall featured the shields of the four Provinces of Ireland and the arms of her principal cities and towns.

The formal toasts of "The President of Ireland" and "Her Majesty Queen Elizabeth II" having been honoured, MR. GRANVILLE SHAW (President of the Conference) offered the toast of "Dublin". He said few toasts commanded a more enthusiastic response than that of a great city, and especially of a city that enshrined within itself, as Dublin did, the chequered history of a gallant and distinguished people. He wished to place on record the appreciation of the Conference authorities for the part the city had played as host on four occasions since the Conference was first established in 1863, and to the contribution Dublin had thus made not only to the advance of science in the field of pharmacy and medicine but also to international amity and concord. He would like to congratulate Dublin on the smooth efficiency that characterised the arrangements this year. The last previous Conference meeting in the city had been in 1929, and it was

a melancholy thought that it might be another quarter of a century before the Conference met there again. The fine old city delighted them with its grand open spaces and broad thoroughfares, and reminded them of the great debt the world owed to the genius of the Irish people. At one point in his address,

people as possible from overseas to come to and enjoy Dublin, and to learn to love Ireland. Dublin wished to be recognised not only as a great capital city but as one comparable with the other capital cities of the world.

Proposing "The British Pharmaceutical Conference" THE MINISTER FOR HEALTH (Mr. Thomas F. O'Higgins, S.C.) said "In this present century we have been fortunate enough to witness striking advances in the practice of medicine. We now seem to be close to attaining control of many conditions that formerly took a heavy toll of life. The advances in medical practice and the reductions in mortality have been attained by progress on two fronts—the preventive and the therapeutic. Examples which come to mind, so far as the preventive field of medicine is concerned, are the almost complete elimination of deaths from smallpox and typhoid, and the great advances in control over tuberculosis.

"Concurrently with the advances made in the control of diseases there has been a tremendous improvement in therapeutic medicine. The antibiotics and the sulphonamides, to mention only the best known of modern discoveries of the scientist and the chemist, have made it possible to control the course of illnesses formerly fatal in many cases, and to minimise the impact of others regarded in earlier years as being incurable.

"These developments," continued the Minister, "in both prophylactic and therapeutic medicine, have resulted in a tremendous increase in the work and responsibility devolving on pharmacists. They have been reflected in the general realisation of the necessity, and the application of measures, to improve the standard and scope of basic training in the profession. But the basic training in itself does not in this age provide the pharmacist with more than the minimum he needs to enable him to practise. Constant advances in medical



IN THE COSTUME OF THE COUNTRY: Mr. Akinkugbe, Nigeria, with Mr. R. J. Cowie, Aberdeen.

when Mr. Granville Shaw was quoting from Omar Khayyam, and had come to the line "why not shatter it to parts?" a crash of china was heard and the entire assembly was convulsed with laughter.

THE LORD MAYOR OF DUBLIN (Councillor Robert Briscoe, T.D.), who responded, said that, as a Dublin-born citizen, he was proud to be called on to speak to the toast of his native city to an audience of such magnitude and importance. They would like as many



THE BANQUET SCENE: General view of the Great Hall, University College, Dublin, during the banquet on Tuesday.

science, and the emergence of countless new remedies, have made it essential for him to devote more time and energy to keeping abreast of modern discoveries. To the satisfaction of that need the British Pharmaceutical Conference contributes in no small degree through the medium of its scientific sessions, and not least through the opportunities it affords pharmacists from many countries to discuss with one another their problems and the progress which is being made towards a solution. The Conference has thus not only an important but an indispensable rôle to play in the furtherance of the practice of pharmacy. It is, I am sure, the realisation of this fact which has led to the size of this gathering here in Ireland tonight. I am no less certain that the continued appreciation of this factor and the enthusiasm of its members will carry the Conference over the next period to the approaching celebration of its centenary in seven years' time, and to a further expansion of its activities."

The speech of the evening came from PROFESSOR KENNETH BULLOCK (Chairman of the Conference) in responding. After a tribute "to your beautiful city with its two Cathedrals and its two Universities", he said some people might ask what the subjects discussed at the Conference sessions had to do with the day-to-day work of the pharmacist handing out goods over the counter. They had much to do with the pharmacist's activities. There had been a time when the practice of medicine had been mainly concerned with recognising the disease, and when little could be done beyond alleviating the symptoms. Today much more was known of the chemical and biological processes, and it was obvious that the cure now lay in the control of the metabolic processes. Science was today producing more complex remedies, and

it was in their evolution that the pharmacist was playing his part. For that reason the attendance of practising pharmacists at the science sessions was to be welcomed. By listening to the summaries of the papers, given in simple language, modern pharmacists, with their higher standards of education, should be able to understand the matters under discussion. The professor then entertained the assembly with apt quotations from G. K. Chesterton, and drew upon a fund of witty stories which delighted everybody. His audience especially enjoyed the story of the young nurse who entered on her

chart : "2 p.m. The patient took a little jelly. 2.12. The patient vomited a trifle."

Proposing the toast "The Guests," Mr. P. F. McGRATH (a member of the Conference Executive and President of the Pharmaceutical Society of Ireland) said :

"One of the favourable results of our association with this great Conference has been the consistent raising of the standards of pharmaceutical education in our own College, bringing them into line with the advances made in recent years in the preparation and pharmacology of new chemotherapeutic agents. Great advances undoubtedly have been made in recent years in the treatment of disease and the provision of better health services for the people. While in no way wishing to detract from the great part played by the medical profession in those advances, I must stress the vital rôle that pharmaceutical research and the work of Conferences such as this have played in placing in the hands of physicians many of the most valuable drugs now in use. Many of the new techniques in the preparation of modern medicaments, and the elimination of harmful side-effects in potent and otherwise efficacious preparations, have come mainly as the result of patient hours of laboratory research carried on by scientific workers in the pharmaceutical field, or from the exchange or pooling of knowledge gained at the scientific sessions of these annual Conferences."

The public health, the patient in hospital, the pharmacist in private or public practice have all, in some measure, benefited by the positive discussions and advances made. But the very efficacy of many of the modern medicaments has brought with it dangers of self-medication. Here the



GUEST OF HONOUR: The Taoiseach (Mr. J. A. Costello) in conversation with Mrs. K. Bullock (wife of the Conference Chairman).

pharmacist can, and does, act as an effective checking and safety medium. Members of the public find it difficult to understand why the pharmacist refuses to supply certain preparations except under the express directions of a medical prescription. Only those who appreciate the potency—and understand the potential danger—of complex drugs can adequately control their distribution in the public interest. That is why the standard of training of pharmacists has been raised far above what was considered necessary not so many years ago.

In its endowment of the Universities, went on Mr. McGrath, the State indirectly contributes to the training of its doctors, dentists and veterinary surgeons . . . but the Pharmacy Act of 1875 (under which the Irish Society was founded) is so framed that it gives the State a perfect pharmaceutical service without any cost whatever to itself. Entirely from their own resources, Irish pharmacists have had to provide a costly and well-equipped College of Pharmacy. Not only is it providing a complete course of education for its students but, in the past few months, it has set about establishing a pharmaceutical research laboratory. Our academic staff now propose to initiate investigations in a number of fields, including the isolation of the medicinally active constituents of some native Irish plants about which little is known at present. The Wellcome Foundation, Ltd., London, has generously given a grant towards the inauguration of that scheme.

I think you will agree that any Society with a record of that kind over three-quarters of a century has reason to feel humbly thankful, and perhaps a little proud, of the part it is playing in the health services of the nation. You will appreciate, too, why it welcomes the stimulus of the British Pharmaceutical Conference."

Replying for the guests, DR. MICHAEL TIERNEY (President of University College, Dublin) said that the Pharmaceutical Society of Ireland had been of great assistance to the College in the training of medical



AT TABLE: A group of diners including Miss J. Siddy, Weybridge; Messrs. W. P. Hutchinson, Oxford; J. M. Cairns, Dover; John B. Fish, Dover; Miss M. D. Smith, London; Mr. J. Crossland, Dover; Mr. and Mrs. F. H. Summers, East Grinstead; Mr. and Mrs. G. R. Wilkinson, London; and Mr. and Mrs. W. Clark, Forest Row.

students in pharmacology, and he hoped that that would be only one of many ways in which the relations between the Society and the University could become ever closer.



HOW IT WAS DONE: Mrs. P. McAuliffe, Dublin, designer of the Conference badge, tells Mr. F. W. Adams (registrar of the Pharmaceutical Society of Great Britain) how she worked it out.



CHAINS OF OFFICE: Wearing his own presidential chain, Mr. Granville Shaw, F.P.S. (President, Pharmaceutical Society of Great Britain) admires, with Professor Bullock and Mr. P. F. McGrath, the chain of office of the Lord Mayor of Dublin (Councillor R. T. Briscoe, T.D., P.C.).

CONFERENCE PERSONALITIES

DR. A. WILLS, B.Pharm., Ph.D., M.P.S., who is the co-author of a paper on the reproducibility of extinction time estimates, after an apprenticeship in retail pharmacy and service with the R.A.M.C., qualified as a chemist and druggist in 1949 and graduated B.Pharm. (Nottingham) in 1951. Joining the staff of the School of Pharmacy, University of London, in 1951, he undertook research work in pharmaceutics under the direction of Dr. A. M. Cook for the Ph.D. degree, which was awarded in 1955. He edited the *Future Pharmacist*, the magazine of the British Pharmaceutical Students' Association, from 1952 until 1955, and is secretary of the School of Pharmacy Historical and Literary Society.

MR. A. C. CAWS, who is the co-author of a paper on the assay of strychnine salts, was educated at Taunton's School, Southampton and University College, Southampton (now Southampton University), from which he obtained a degree in chemistry in

Mr. A. C. Caws



1949. After national service in the Army, he joined the staff of Howards of Ilford, Ltd., as analyst and remained there until he took up his present appointment, at the Wellcome Chemical Works, Dartford, in 1953. His work there involves the examination of drugs and pharmaceuticals and the development of analytical methods.

PROFESSIONAL SESSION

Registrar's paper on conduct and discipline

OPENING the first professional session, the Conference president (Mr. Granville Shaw) said that the procedure it was proposed to follow was similar to that which had become traditional for the Conference symposium session. There would be no formal proposals, and each speaker was requested to restrict himself to four or five "English" minutes. Mr. Adams then proceeded to outline the salient points of his paper:—

Professional Conduct

(Abridged)

APPROPRIATE standards of knowledge for admission and appropriate standards of conduct after admission are the warp and weft of a profession. As soon as the Pharmaceutical Society was founded arrangements were put in hand for prescribing standards of knowledge for admission to the Society. No similar regulation of the conduct of members was undertaken. Until the Act of 1933 was passed introducing statutory control there was hardly an instance of a member being expelled from the Society. This does not mean that questions of conduct were not discussed and that indifference was displayed towards them.

The Pharmacy Act of 1868 gave power to the Privy Council to remove names from the Register for offences against the Pharmacy Acts but that was all. According to the Report of the Departmental Committee on the Poisons and Pharmacy Acts published in 1930, there is no recorded instance of that power having been used, the reason being the absence of any procedure for the subsequent restoration of names so removed. That lack of effective statutory control does not appear to have been entirely unwelcome. There seemed to be a certain reluctance to accept the consequences of disciplinary action. Had the Society been active in imposing standards of conduct on its members, in spite of the fact that they would still have been able to practise their calling, there is no doubt that that would have exercised a very strong influence on the practice of pharmacy and might well have resulted in statutory powers having been obtained very much earlier.

Basis of Professional Conduct

The view is usually expressed that pharmacy is partly a profession and partly a trade or business, dispensing coming in the first category and everything else in the second. However, reference to the authorities shows no basis for that divided classification. The Charter of 1843 refers to the business of chemists and druggists. The Pharmacy Act of 1852 talks about the business or calling of pharmaceutical chemists, and of promoting a uniform system of education of those who should practise chemistry and pharmacy; the Pharmacy Act of 1868 speaks of persons known as chemists and druggists who should possess a competent and practical knowledge of their business, and that, by the way, in addition to referring to persons keeping open shop for the retailing,

dispensing or compounding of poisons. Although the Pharmacy and Poisons Act, 1933, uses the expression "authorised seller of poisons," the Departmental Committee which prepared the draft Bill says in its report that "... 'the business of a pharmacist' ... may well be held to include things other than those immediately connected with poisons." Moreover, the Act requires a pharmacist to have personal control of the retail

"The other observation I should like to make is this, that obviously the Act of 1933 was designed for the purpose of improving the status of a responsible and important class of public servants, if I may call the profession of chemists that."

Those are some of the authorities describing the practice of pharmacy and it will be seen that neither dispensing nor poisons is separated from other activities for special attention except as part of a larger whole. It seems clear from this that the handling of drugs, at least so far as their supply direct to the public is concerned, is regarded as a unity and calls for a special type of person, namely the pharmacist. It is not sound to argue that dispensing is professional and the supply of drugs "over the counter" trade, if by that is meant that a different standard of conduct is applicable to the one than to the other. Confusion arises because both dispensing and the sale of drugs can be undertaken in a commercial manner. A pharmacist cannot act in that manner without forfeiting the special position which is inherent in his claim to recognition and which the above-mentioned authorities presuppose.

In 1951 at the British Pharmaceutical Conference held in Harrogate, I contributed a paper on the organisation and conduct of a pharmacy (see. C. & D., Sept. 22, 1951, p.399) and what I said then is, I think, relevant to the present discussion :

"When a pharmacist opens a new pharmacy or takes over an existing one, whether as a proprietor or manager, he is taking on an obligation to give a special and distinctive kind of service. I draw no distinction between the working proprietor and the manager. It is ultimately the pharmacist in charge of the pharmacy who is responsible for what goes on there. The obligation is to supply the local population with their pharmaceutical requirements. By 'pharmaceutical' I mean drugs, medicines and substances and preparations of a related character and such medical and surgical appliances and articles of a related character as can suitably be handled by the pharmacist, together with services coming within his scientific and technical competence. By 'requirements' I mean everything which serves the patient's and customer's best interests, that is supplying the right article or service at the right time at the right place at the right price. Perhaps there may be someone saying at this point 'Surely it is dispensing which is the reason for the pharmacist's existence?' And although we may think we should be the exclusive suppliers we have never felt this strongly enough as a body to make it a matter of pharmaceutical policy."

A Moral Question

"To concentrate on dispensing is, however, to take too limited a view of the pharmacist's special contribution to the public welfare. Dispensed medicines are not the only medicines which the



Mr. C. J. Cremen, Member of the Council, Pharmaceutical Society of Ireland.

sale of drugs in a pharmacy. The Report also states that one of the main objects of the Committee is "to strengthen the representative character and the disciplinary powers of the Pharmaceutical Society of Great Britain in their relations to the profession of pharmacy. The Supplemental Charter of 1953 refers to the exercise of the profession of pharmacy. Then there are the remarks of the Lord Chief Justice in the only case of an appeal to the High Court, *Lawson v. The Pharmaceutical Society* (1941) 57 L.T. 315, against a decision of the Statutory Committee. In the course of delivering judgment the Lord Chief Justice said:

"... The intention of the Act seems to me to make the Council of the Pharmaceutical Society, as representing the profession as it has been called, masters in their own house. They were to have a Statutory Committee composed of members of the Society, and the Statutory Committee was to undertake such inquiries as have been conducted in this case and to give such directions as have been given in this case so as to maintain, and perhaps improve, the standard of the members of the Society as the members of a respectable and honourable profession."

Later in his judgment the Lord Chief Justice said:

public requires. It is not necessarily the nature of the articles they supply which distinguishes pharmacies from other shops, but the manner and circumstances in which transactions involving them are carried out. Pharmaceutical products may be obtained from other shops, but none of those is under an obligation to supply such articles, whereas in my submission there is a duty resting on the pharmacist to do so when such products are required. The words 'obligation' and 'requirement' are the significant words in this statement — the one a moral question, the other a question of knowledge — which mark out the pharmacy from other shops and determine basically how it should be organised and conducted, and not whether the supply of pharmaceutical products is reserved to pharmacies by law, however desirable in the public interest it may be that such products should be so reserved.

"I can see no difference in principle between dispensed medicines and those sold over the counter. Both may or may not be prepared in the pharmacy. Though it is not identical in all respects, the situation in the two cases is in essence the same. The pharmacist's knowledge, skill, judgment and integrity are involved in both, varying in the extent to which they are called into play in particular cases, but equally required in dealing with the two cases of transaction.

"In order to discharge the responsibility resting on those who are in control of pharmacies the qualities of conduct, knowledge and management are required. Perhaps the term 'behaviour' would have been more suitable to avoid confusion with the use of the term 'conduct' in the title of this paper, but it suggests an individual rather than a professional attitude. The purpose of the pharmacist's work is to prevent or relieve suffering. It is essentially a humanitarian task and the pharmacist must therefore by temperament and inclination be suited to bear the burden which is the inevitable accompaniment of service to the sick. The sick may need help at any time and they may need it quickly. Willingness, sympathy, tact and patience are required in dealing with persons who are themselves ill or with those who are acting on behalf of such persons, while at the same time firmness must be shown in resisting requests, demands or suggestions, from whatever quarter, which are not consistent with the patient's interests.

"One of the earliest duties of a pharmacist who becomes the proprietor or manager of a business is to become acquainted with his customers; the better he knows them the more effectively he can fill their needs. Equally important is the relation the pharmacist establishes with the medical practitioners in the district and with others with whom he should co-operate in giving a service which is complementary to theirs.

Protection of the Public

"The function of the pharmacist in preventing errors by the prescriber from having unhappy consequences is regarded as an integral part of his work. An equally important function is to prevent

ill consequences to the public from the lack of knowledge, the negligence or the folly of persons who have need of, or desire to obtain, pharmaceutical products for their own or some other person's use. Pharmaceutical products are not ordinary articles of consumption which can be safely left entirely to the choice of the customer and to which the maxim *caveat emptor* can appropriately be applied. The customer may receive something which is dangerous in itself or in the circumstances in which it is requested or which is not dangerous in that sense but may delay proper treatment, or which is taken because the person taking it thinks it is doing him good, but it is not because he is not ill. The pharmacist therefore can use his

arrangements are not made for another pharmacist to be available the pharmacist is not an essential factor in the Health Service.

"Again, the pharmacist's obligation to meet requirements means that he must take responsibility for the nature and quality of what he supplies. Although warranty arrangements may in some cases put the legal responsibility further back, the pharmacist cannot escape the moral responsibility for supplying something which is not what it purports to be."

Medicine and Veterinary Surgery

Disciplinary control in medicine and veterinary surgery has been in existence for many years, the medical dating from 1858 and the veterinary from 1881.

The Medical Act, 1858, created the General Council of Medical Education and Registration of the United Kingdom, now called the General Medical Council, to control the education and registration of medical practitioners. It consists of eleven members appointed by the Privy Council, twenty-eight appointed by the examining bodies in medicine and eleven elected by the registered medical practitioners. The Council has power to remove from the Medical Register the name of any person who has been convicted by any court in the United Kingdom or the Republic of Ireland of any felony, misdemeanour, crime or offence or who has after due inquiry been adjudged by the General Medical Council to have been guilty of infamous conduct in any professional respect. The disciplinary functions of the Council are exercised by a Medical Disciplinary Committee consisting of the president and eighteen other members of Council, at least six being elected members and at least two being not medically qualified. The Committee works under rules made by itself which must be approved by the Privy Council and must provide *inter alia* for any matter referred to the Committee to have been investigated by a Committee of the Council — the Penal Cases Committee — which apart from the president contains no person who acts in the matter as a member of the Medical Disciplinary Committee.

The Medical Disciplinary Committee is advised upon questions of law by an assessor appointed by the Council who must be a barrister, advocate or solicitor of not less than ten years' standing. Proceedings of the Committee are required to be held in public subject to the rules. Evidence may be required to be given on oath and witnesses may be subpoenaed. A person whose name has been removed from the Register may appeal to the Judicial Committee of the Privy Council. The Medical Disciplinary Committee may restore a name if it thinks fit at any time. An application for the restoration of a name may be made after eleven months from the date of erasure, but it does not follow that the name will be restored. The General Medical Council issues a warning notice setting out matters that have been adjudged infamous conduct in a professional respect, though it is made clear that other matters may be the subject of investigation by the Medical Disciplinary Committee. The principal matters



Mr. J. G. Coleman,
Registrar, Pharmaceutical Society of Ireland.
knowledge and position to prevent (1) immediate danger, (2) ultimate danger, (3) waste of the customer's money.

Awkward Prescriptions

"Just as the pharmacist must say 'no' sometimes when normal business considerations would lead him to say 'yes,' so he must say 'yes' in circumstances when normal business considerations would lead him to say 'no.' The profitability of a particular transaction cannot be the criterion. Rather the need of the customer is the deciding factor. It is difficult to see what circumstances justify a pharmacist turning away a prescription and doing so can only leave a bad impression.

A Twenty-four Hours' Service

"The question of a twenty-four hours' service is also linked with the availability of service. The pharmacist's obligation requires him to give service when it is necessary, in other words the pharmacist is always on duty. While pharmaceutical requirements, either immediate or prospective, can be met in the main by normal working arrangements, it is inevitable that there should be occasions when those will not suffice. Thus, unless provision is made for covering the twenty-four hours either the patient will go without, or someone else will have to do the pharmacist's work. If a particular pharmacist either is not available himself or

mentioned in the warning notice are the giving of untrue certificates; employment of unqualified persons and covering; contraventions of the Dangerous Drugs Act; association with unqualified persons; advertising and canvassing; association with unqualified midwives. The ruling of the Master of the Rolls in *Allinson v. General Medical Council* (1894), 1 Q.B., 750 has been the guide to what constitutes infamous conduct in a professional respect. He said:

"If a medical man in the pursuit of his profession has done something with regard to it which will be reasonably regarded as disgraceful or dishonourable by his professional brethren of good repute and competency, then it is open to the General Medical Council, if that be shown, to say that he has been guilty of infamous conduct in a professional respect."

The British Medical Association, which is a voluntary body of medical practitioners having no constitutional relationship to the General Medical Council, has machinery for dealing with problems of conduct arising between members of the profession, and has issued many rules for the guidance of practitioners in matters which are likely to arise between them. Those rules, which are in addition to the requirements of the General Medical Council and in elaboration of them, include three which have been adopted jointly by the B.M.A. and the Society dealing with the relationship between pharmacists and doctors, namely:

1. It is undesirable that a doctor and a pharmacist should carry on a practice from the same premises unless each practice has a separate address and there are separate means of access to the two addresses.

2. It is undesirable that a doctor should have a financial interest in directing his patients to a particular chemist when there are other chemists in the area.

3. In order to preserve the principle of free choice, and to avoid abuse, it is undesirable that a doctor should recommend a particular chemist, or a chemist a particular doctor, unless he is specifically asked to do so by the patient.

The conduct of veterinary surgeons is controlled by the Royal College of Veterinary Surgeons. That body was founded in 1844 and in 1881 it was given the duty of maintaining the statutory register set up at that time. The Council of the College was given the power to remove names from the Register of Veterinary Surgeons for convictions of offences which, if committed in England, would be misdemeanours or higher offences, or for conduct disgraceful in a professional respect. The Council consists of twenty members of the College elected by members of the College and four persons appointed by the Privy Council who may or may not be members of the College, and two persons by each university which has a degree approved by the College. The power to remove names from the register is now required to be exercised by a Disciplinary Committee appointed by the Council and consisting of nine persons,

all of whom must be members of the council. Not less than four are elected members of the Council and one is a member of the Council appointed by the Privy Council.

Before removing a name, the Disciplinary Committee must hold an inquiry. Evidence may be required to be on oath and witnesses may be subpoenaed. The procedure of the Committee may be regulated by rules made by the Council of the College, but otherwise the Disciplinary Committee may regulate its own procedure. All rules and regulations must be approved by the Privy Council. Appeals against a decision of the Disciplinary Committee lie to the High

the Committee. Similar provisions exist in respect of corporate bodies which may be disqualified from being authorised sellers of poisons or may have their premises disqualified. The Committee may of its own motion or on the application of the person concerned direct the Registrar to restore a name to the Register. The Committee may make regulations governing the procedure followed in exercising its jurisdiction subject to the approval of the Privy Council.

The regulations currently in force provide that the chairman should consider convictions and information in the nature of complaints charging misconduct, and may decide that a matter should not proceed further if he is of opinion that the case is not within the Committee's jurisdiction, the complaint is of a frivolous character, the criminal offence or misconduct alleged is not of a serious nature, or, owing to the lapse of time or other circumstances, may properly be disregarded, or the answer submitted by the person affected is satisfactory. The chairman may, however, in such cases direct that a reprimand or caution be administered. If the chairman does not dispose of the case in that manner an inquiry must be held except when the solicitor instructed to investigate the facts of the case reports that he is of the opinion that the holding of an inquiry would serve no useful purpose, in which case the Committee may decide whether or not the inquiry should be held. An inquiry must be opened in public but at any stage the Committee may decide to continue the hearing in private. The person affected may be represented by a solicitor with or without counsel. No provision is made for witnesses to be examined on oath or to be subpoenaed. At the conclusion of an inquiry the Committee may direct the removal of the name from the Register. The Committee may, however, though finding that the conviction or misconduct is such as to render the person unfit to be on the Register, decide not to remove the name but to issue a reprimand or caution; alternatively, to defer a decision in the case to a later date, enabling the person in the meantime to produce evidence of good character.

Table I sets out the matters which have led to inquiries, together with the results, since the Committee first began to operate.

TABLE I

STATUTORY COMMITTEE, 1936-55 Analysis of Cases Considered

	Convictions	Complaints
Reports received	887	77
Chairman's directions:		
No action ...	453	24
Warnings ...	340	12
Inquiries ...	94	41

The decisions which may be given by the Committee in respect of persons are (a) removal of name, (b) name not to be restored (when the person is at the time not on the Register), and (c) no action, i.e., no direction under (a) or (b). In the analysis given in Table II the result has been described as



Mr. Malachi Leonard,
Chairman, Hotels Committee.

TABLE II

ANALYSIS OF INQUIRIES

<i>Convictions</i>		<i>Result</i>	<i>Subsequent Action</i>	
Pharmacy Acts ...	17	Removed 2 Warned 5 Premises disqualified 1 Company disqualified 1 No action 8	Restored 2 —	
Dangerous Drugs Act	9	Removed 3 Warned 3 Probation 3	Restored 2 None 3	
Rationing and Control Orders	9	Removed 2 Company disqualified 5 years 1 No action 6	Restored 1 —	
Embezzlement, larceny, fraud, false pretences, inciting to steal, receiving stolen goods	36	Removed 11 Not restored 6 Warned 6 Probation 7 No action 6	Restored 8 Restored 4 —	
Procuring miscarriage	13	Removed 8 Not restored 2 Probation 3	Restored 6 Warned 2	
Indecency	5	Removed 3 Probation 2	Restored 2 None	Removed 1 Dec'd 1
Customs offences ..	1	No action 1	—	
1941 Act advertising	1	Warned 1	—	
Military Service Acts	1	Removed 1	Restored	
Cruelty to animals ...	1	No action 1	—	
Drugging greyhounds	1	Not restored 1	—	

<i>Complaints</i>				
Pharmaceutical Services · Substitution ..	4	Removed 1 Warned 3	Restored	
Faulty dispensing ...	2	No action 2	—	
Complaint by doctor	1	No action 1	—	
Doctor Pharmacist association	3	Premises Closed 1 No action 2	—	
Sale of morphine for infants	1	Warned 1	—	
Altered prescriptions	2	Removed 1 Warned 1	Dec'd	
Drunkenness	19	Removed 5 Not restored 2 Warned 1 Probation 10	Restored 2 Dec'd 1 —	Dec'd 1
Objectionable printed matter	3	Removed 2 Company disqualified 3 years 1	Restored 1 —	
Advertising	4	No action 4	—	
Locum conduct ...	1	Removed 1	—	
Drug addiction ...	1	Removed 1	—	

"warning" when the penal direction has not been given and the decision to take no further action has been preceded by a reprimand, censure or warning as to future conduct. The result described as "probation" indicates that the inquiry was adjourned for a period of time for the production of reports of satisfactory conduct.

The Statutory Committee has not issued a warning notice based on its decisions but the Council of the Society has issued for the guidance of phar-

macists and corporate bodies carrying on business under the Pharmacy Acts, a Statement upon Matters of Professional Conduct. That Statement, which was first introduced in 1939, amended in 1942 and again in 1953, when it was approved by the annual meeting of the Society, contains a number of matters upon which the Council considers that guidance is needed. The preamble of Statement is as follows:

"It is not implied by the issue of this Statement that all matters which

should be the subject of standards of professional conduct are included but only those upon which it is considered that guidance is needed. The Council, in considering whether action should be taken on any matter, is not limited to matters mentioned in this Statement, nor on the other hand does it follow that all instances of conduct at variance with the Statement would, when receiving such consideration, be treated as of equal importance. It is emphasised that this Statement is not primarily a basis for applying compulsion, but a means of assisting pharmacists to discharge the moral obligation resting upon them to observe standards of conduct appropriate to their calling."

Responsibility of the Council

It will be clear from that preamble that the Council regards itself as responsible for bringing to the notice of the Statutory Committee matters which should receive its attention. It is, however, open to any person, whether pharmacist or member of the public, to report to the Statutory Committee instances of conduct which he may consider raises the question whether the person concerned should continue to be on the Register. But most of the matters other than convictions which have been the subject of inquiry by the Committee have been raised by the Council of the Society. In dealing with those matters the Council receives recommendations from its Ethical Committee. No member of the Council who is a member of the Statutory Committee is a member of the Ethical Committee or is present at the meeting of the Council when recommendations of the Ethical Committee in that respect are under discussion and decision. Because the wording of the Statute does not refer to professional misconduct it has been argued that only misconduct which would be regarded by public opinion as unworthy of a pharmacist, that is to say, conduct implying moral turpitude such, for example as drunkenness, can properly be taken into account by the Statutory Committee. While there has been no decision of the High Court similar to that in the case of *Allinson v. The General Medical Council* referred to above, there is no reason to believe that that view is a valid one or that the Committee is precluded from applying to pharmacy a similar principle to that enunciated by the Master of the Rolls in that case. It would appear that any matter which is reasonably regarded by pharmacists themselves as undesirable can properly form the subject of a decision of misconduct by the Committee. This view is supported by the remarks quoted above of the Lord Chief Justice in *Lawson v. The Pharmaceutical Society* and his further comment:

"Although I do not say for a moment that the mere fact that the Statutory Committee have come to this decision that it is right to remove the appellant's name from the Register is conclusive, if they have evidence upon which they might act I say that that opinion is entitled to the greatest possible respect, because they know

what is the standard of requirement of the profession to which they belong and which, as I read the Act of Parliament, they are directed to take into consideration. One cannot shut one's eyes to the fact which indeed was mentioned by learned Counsel on behalf of the appellant in opening this case, that the Act of 1933 was intended, as I think he said in substance, to elevate this business into the status of a profession which is to be in part managed and controlled by the members of the Society to which all persons carrying on the business or exercising the profession must belong. While I agree with the decision to remove the appellant's name from the Register, I go further, and say that the view which the Statutory Committee have formed, they themselves being members of the Society, is one which should carry, and does carry, great weight with me in the decision which I have formed."

Loth to Interfere

Mr. Justice Humphreys, the other Judge in this case, made the following observations in the course of his agreement with the Lord Chief Justice:

"I am not a pharmaceutical chemist, and cannot be as well acquainted with the ethics and the proper way of carrying on business by such a person as the members of the Statutory Committee are. I should be extremely loth to interfere with their discretion in the matter, assuming I had power to do so."

The Statement upon Matters of Professional Conduct is not binding on the Statutory Committee, which is free to take its own decisions according to what it considers right and proper, irrespective of what the Statement or any other authority may say, subject to the High Court. As an expression of the views of

the Council and ultimately of the membership, the Committee has on more than one occasion indicated the importance it attaches to the Statement, and it is evident that in the long run it will be the members of the Society who determine the standards of professional conduct.

It will be noticed that in the matter of disciplinary control veterinary surgery and pharmacy are more closely in accord with each other than either is with medicine. That is because the disciplinary machinery is associated directly with the statutory body of practitioners, there being no such medical body. A further resemblance is in the guidance over a wide field which is issued by the Councils of the two bodies on professional matters, though these Councils are not themselves the disciplinary bodies. Those documents go considerably beyond the kind of matters dealt with in the warning notice of the G.M.C.

In the Society's Statement, the word "pharmacists" applies to pharmacists wherever they are working, in hospitals or in industry or elsewhere, and not merely to those in general practice. The basic principles of conduct expected of the pharmacist are set out together with an indication that he has not only responsibility to the public, but also to his colleagues in the discharge of their responsibility to the public.

Paragraph 1 indicates that a pharmacist cannot pick and choose what sort of service he is going to give. It should be what could reasonably be expected by the public of any establishment which purports to be run as a pharmacy. It means that customers should not be forced to go elsewhere because some preparation is troublesome to make or involves some other inconvenience. If an article cannot reasonably be supplied from stock and the customer

prefers to try elsewhere rather than wait for it to come along later, assistance should be given in finding another establishment where the need can be met rather than leaving the customer to find that for himself. The paragraph also raises the question of a 24 hours' service which I have already touched at a rather earlier stage of this address.

Hygiene in the Pharmacy

Paragraph 2 concerns the clean, orderly and systematic arrangement of stock and work in the pharmacy. In this connection one might refer to the new food hygiene regulations which are applicable to pharmacies, and it would be unfortunate if any pharmacy were found to be deficient in those requirements which have to be observed by persons making no special claims to high standards of conduct. Paragraph 3 is a paragraph of great importance, in view of the tendency for the identity of a pharmacy to be lost by virtue of the range of activities which may be carried on there, and modern methods of publicity associated with the sale of goods. Paragraph 4 emphasises the fact that it is where the pharmacist is in contact with the public that it is most important that proper pharmaceutical standards should be observed. It does not mean that pharmacists who may be working at one or more stages removed from the public have not their part to play and that also brings in the corporate body where that is the owner of the business. Paragraph 5 is in effect an extension of paragraph 4 and is directed against any tendency towards unqualified persons being allowed to have more authority than their status justifies. Paragraph 6 is aimed at maintaining the principle that a pharmacist handles drugs professionally and not commercially.



READY FOR THE START: Happy excursionists awaiting the "all aboard" call for the tour of Bray and Wicklow.

The

CHEMIST AND DRUGGIST DAILY BULLETIN

Pictures and reports of events and discussions at the ninety-third meeting of the British Pharmaceutical Conference Dublin, 1956.

FRIDAY, SEPTEMBER 7



As issued to Conference members in Dublin and to pharmacists in the Republic of Ireland and in Northern Ireland.

OFFICIAL ORGAN OF THE PHARMACEUTICAL SOCIETY OF IRELAND

CONFERENCE EXCURSION

Twenty-six Coachloads Tour the Garden of Ireland

THE break from the serious business of the Conference on Wednesday for the Excursion to the "garden of Ireland" (county Wicklow) was welcomed by all the delegates. A short Science Session was held in the morning at Newman House, St. Stephen's Green, but it finished shortly before 11.30 to give those attending time to get round to Earlsfort Terrace in order to join the excursion party.

A fleet of the latest luxury touring buses of Coras Iompair Eireann (the national transport organisation) in bright sunny yellow were in readiness, and under the direction of Mr. Phil McAuliffe (chairman of the Transport Committee) and a host of stewards everybody was soon comfortably seated. As the buses moved out towards the East Coast Road the visitors were pleasantly surprised to find that they had C.I.E. couriers aboard, and along the journey through the city to Ballsbridge, places and buildings of interest were pointed out and short histories given. The weather, though lacking in sunshine, was not unpleasant and there were no heavy downfalls of rain.

From Dun Laoghaire the route was along the winding road by the sea at Sandycove into the pretty suburban town of Dalkey, where, skirting the Fawcett Maxwell corner pharmacy (owned by the Conference Local Committee secretary, Mr. Donal Kennelly) the coaches entered the famous Vico Road, from which there is a superb view of Killiney Bay and the distant Bray Head and Sugar Loaf mountains. Couriers did not omit to point out the cottage on Vico Road in which George Bernard Shaw lived for several years in his boyhood. The route was still along the sea from Killiney to Shankill, whence the buses took the main road into Bray, the busiest seaside town of county Wicklow. At Bray a halt was made for lunch.

After lunch at Bray, the party boarded the coaches again and proceeded

along the mile-long esplanade to Bray Head, which is 800 feet high and has a chair-lift up the side, and round by Bray Church, leaving the Sugar Loaf, 1,600 feet high and at the highest of the Wicklow Hills, on the left. The road here ascended to 900 feet above sea level, and led on to the valley of Enniskerry and past the two artificial lakes at Roundwood, 800 feet above sea level, which provide the water supply for the city and county of Dublin. The water is purified without the use of chemicals, by filtration through sand and gravel.

And so to Glendalough, the "glen of the two lakes", home of St. Kevin in the sixth century. After a pleasant stroll round the lakes, during which some members proceeded by boat across the lake to the foot of "St. Kevin's bed", a cave in the mountainside, where once St. Kevin lived, the party was conducted around the ruins of St. Kevin's church, which has features going back to the seventh century. Within the church graveyard those who were able to

"pass the test" made their wish at St. Kevin's cross, and visited St. Kevin's kitchen.

After tea at Glendalough, the party proceeded past the smallest village in Ireland (consisting only of a church, a school and one inhabited house), through Rathdrum, down to the Meeting of the Waters, and back to Dublin.

Women Pharmacists' Party

THE president of the National Association of Women Pharmacists (Mrs. N. Williams) and its secretary (Mrs. E. N. J. Jones) welcomed guests at an informal party given by the Association at the Gresham Hotel on Wednesday evening. The guests included Professor and Mrs. Bullock, Messrs. Granville Shaw, P. F. McGrath, W. T. Elder, W. J. Tristram, and Mrs. Michael Costello, Mr. and Mrs. D. J. Kennelly, Mr. and Mrs. D. T. Murphy, and Dr. E. C. Dowling.



CHECKING THE DEPARTURE: Members of the local organising committee and of Coras Iompair Eireann (National Transport System) checking over the schedules before the Garden of Ireland excursion. Left to right: Messrs. J. McGuirk (C.I.E.), P. McAuliffe, M. L. Cashman, J. J. Doherty, Chief Inspector M. Dowling (C.I.E.), J. J. Power and T. Redmond

PROFESSIONAL CONDUCT

Registrar hears and answers criticisms of his paper

CONCLUDING his address, the bulk of which is given on pp. 288-92 of this issue, Mr. Adams said that he thought that three points should be discussed more fully: the appearance of the pharmacy; the importance of ensuring that the pharmacist in the exercise of his duties was not subject to non-qualified control; and the question of the claims put forward by pharmacists for goods made by themselves or for the products they handled. He quoted claims made for a certain preparation of cold-cure type. Note should be taken, he said, of the late development in the Society of the question of professional conduct. No distinction could be drawn between different types of pharmacy and pharmaceutical practice.

Only for Retail?

MR. GELDARD, Rochdale, said he had been listening to Mr. Adams' talk with a rising sense of injustice. The title of the talk was "Professional Conduct," but Mr. Adams had dealt only with retail pharmacy. What about professional standards in manufacturing and wholesale pharmacy?

MR. F. L. WATSON, Epsom and Sutton, pointed out the danger that the Statutory Committee might be penalising individuals, whereas directors of corporate bodies, which also could be struck off the Register, had the advantage that they could re-form and carry on business. He thought that the comparison between medicine and veterinary surgery and pharmacy should not be carried too far. Although pharmacists supported the Statement on Matters of Professional Conduct, there must be no restriction on private enterprise. Doctors and veterinary surgeons were not in competition with non-professional traders.

MR. H. B. FIGG, Berkhamsted, said that Mr. Adams had apparently gone through the history of the development of professional standards in pharmacy, but had not carried his history up to the present moment. The trade Press several months ago had reported interesting proceedings in Dublin turning on the professional basis of pharmacy. He had not the judgment with him but, remembering what he had read, it had distinctly divided carrying on of the business of a chemist and druggist between (a) the professional aspect and (b) the carrying on of a trade. The dividing line seemed to be the making up, preparation and dispensing of medicines, and there it stopped. Now they saw that that judgment gave a definite line of division. When the bottle of medicine had been made up and handed to the patient or customer, it became trading because, if they had to sue for the value of the medicine, they would sue not for professional conduct but for work and labour and for the article. It was surprising that Mr. Adams, in his able paper, had left out his comparisons with the other professions the one that went very near their own — the dental profession. Professional dental work

was carried on in the surgery but, when the job was completed and the dentures handed to the patient, the dentist if he had to sue for payment sued for the value of the article only. It was on that line that they should hear further from Mr. Adams. He also would like to hear further about the Jenkin v. Pharmaceutical Society case, which had been the basis for the formation of the National Pharmaceutical Union.

MR. T. D. CLARKE, Newcastle, thought that the statement by Mr. Adams that the pharmacist was always on duty ought to be clarified. A statement like that left the chemist open to a charge of rota-breaking.

MR. C. E. TURNER, Stoke-on-Trent, said that the Statement on Matters of Professional Conduct should be more rigidly enforced. It was quite easy for a member of the Society to contravene the code of ethics and "get away with it." Advertising was one example. He asked whether the present machinery for dealing with complaints was adequate, and whether Mr. Adams would agree that the Statement should be binding on the Statutory Committee. He did not agree that a pharmacist who could not dispense twenty-four a day was not an essential part of the National Health Service.

MR. K. J. WADGE, Plymouth, quoted an example of a local company which advertised its dispensing services at Easter and Christmas. On two occasions his local Branch had written to Mr. Adams about the advertisement. The first time the company, after having received a letter from Mr. Adams, agreed to withdraw its advertisement. A short time later it had published another similar advertisement. Why could the company get away with such actions when the poor retail pharmacist could not?

MR. S. DURHAM, Sheffield, explained that the service given by certain pharmacists in Sheffield was not, as a previous speaker had suggested, a twenty-four hour service. They realised in Sheffield that no-one could work long hours and still give efficient service. They had an extended service until 10 p.m.

Hospitals Needing Improvement

MISS M. D. SMITH, London, as a hospital pharmacist, regretted that the Statement on Matters of Professional Conduct did not cover all members. They did not get the Society's inspectors round the hospital pharmacy departments. Some hospital pharmacies could be improved if only they were concerned with the fact that they were professional people and that their places of work should look professional.

MR. E. ROBINSON, Bradford, suggested that young students of pharmacy should be given "careful ethical instruction" and not plunged into the cut-and-thrust of commercial life. He thought that the Pharmaceutical Society should be encouraging its members to the utmost and not denying them professional

responsibility. Pharmacists should have the privilege, for example, of discussing with the patient whether or not he should have tranquillisers. They needed to have the fullest scope for their professional ability. He would like to see the new tranquillisers and the like put into the hands of the pharmacist, and not into Schedule 4 of the Pharmacy and Poisons Act.

MR. W. H. CLOUD, Barking, said that, in some parts of England, pharmacists had got together to give a composite twenty-four-hour service in a particular area. What was the Society's attitude to that?

MR. J. E. T. JONES, Aberdare, described the Society's inspector as an *agent provocateur* in going to many Birmingham chemists in an effort to buy methyl pentynol.

Control for Manufacturers

MR. K. HOLLAND, Romford, said that the Society's Council should spend more time than it had in the past in finding ways of controlling the manufacturing and wholesaling sections of the drug industry.

MR. A. CALDWELL, Singapore, agreed with Mr. Holland. Some of pharmacists' difficulties originated from the classification of poisons. It was hard to draw the line between scheduled poisons and drugs such as aspirin which, if used indiscriminately, could be toxic.

MR. P. G. FLOOD, South-east London, said that Bernard Shaw had said "There are lies, damned lies, and statistics." He would change that to "There are lies, damned lies, and manufacturers' statements." All Mr. Adams' statements had referred to crimes in retail pharmacy. It was no use their being dragooned and bludgeoned. Who was going to devise a code of ethics for the manufacturers? They also could commit crimes of professional conduct. They should have some discipline also because the flood of literature almost hypnotised pharmacists.

MR. S. POWLSON, West Kent, asked if the Society's journal could not set an ethical example in its advertising columns.

MR. R. B. WILLIAMSON, Derby, said that they had had the Statement on Matters of Professional Conduct amended three times, and he still maintained that it was one of the woolliest documents he had read. If the Society wished to give substance to the Statement on Matters of Professional Conduct they could do so within one year if they would get "off the fence."

MR. A. E. FOOTITT, North London, asked how far legal responsibility would affect pharmacists acting in the capacity of advisers on drugs to doctors.

MR. S. DURHAM, Sheffield, pointed out that pharmacists who did not attempt to maintain the ethics of the profession were those normally only rarely seen at Branch meetings. He felt that local Branches of the Pharmaceutical Society should have some disciplinary powers, particularly in the matter

of rota-breaking. If the Branches had that power unprofessional conduct would decrease.

MR. M. COSTELLO, Dublin, said that having listened to previous speakers he could say that the problems, ethical, professional, etc., were in every country almost the same. He went on: "I would like to compliment our visitors on the sincere way in which they try to look after the professional and ethical side of pharmacy. Somebody referred to the trouble we had in upholding the status of pharmacy in this country a couple of years ago and I must say it was a grand experience to see and find the wholehearted support, financial and otherwise, that our members gave at that time." He had seen from the talk that morning that in England also they were just as proud of and sincere about their professional conduct. He pointed out that in Ireland pharmacy was still controlled by an Act of 1875. They had been promised in recent times new legislation and they felt that that was absolutely necessary to give them the opportunity to be of more assistance to the public and to be covered more fully by an Act of Parliament.

The Author Replies

MR. ADAMS, taking up in turn the points raised, said that one could understand Mr. Geldard's feeling of "injustice", but it was mentioned in the paper that the pharmacist, wherever working, should be regarded as subject to the same conditions of responsibility to the public and to his colleagues for what he did. By the nature of the case the main responsibility rested upon the man who was supplying the public direct. It was true that there was responsibility on the manufacturer also, and he thought that, as had been shown by the discussion, the rôle of the pharmacist in the industry on questions of conduct was becoming more serious and was now receiving more recognition. Undoubtedly the pharmacists engaged in the industry could help, and must take responsibility—to some extent, anyhow—for what was done by their companies, and for what they were willing to associate themselves with so far as their companies were concerned. But they could not get away from the fact, he was sure, that the pharmacist in direct contact with the public had the most responsibility. Surely the essence of any profession—or the importance of it—was proportional to the degree of responsibility that it bore. He thought that was a sound principle, and the more responsibility they were prepared to take on the more important was their job.

Mr. Watson had referred to the relationship between an individual pharmacist and a corporate body so far as the Statutory Committee was concerned, and felt that there was some disarray of treatment. It was a fair point. A number of features of the present position were not satisfactory, and that was undoubtedly one of them. The experience of medicine and veterinary surgery was much longer than that of pharmacy and was therefore a valuable guide. It was true that doctors were in a strong position in their work, but that was largely as a matter of

custom, not law, because there were unqualified medical practitioners. In veterinary surgery, it must be remembered that unqualified practitioners were permitted as late as 1948. He did not think they could derive much satisfaction from arguing that doctors and veterinary surgeons were not in competition with anybody.

Mr. Figg had referred to the Irish proceedings on the question whether dispensing was a professional or a trade activity. Mr. Adams said he was reluctant to discuss that case because he did not know enough about it. The point was that, if dispensing was a profession, it was outside the control of a particular Commission. If otherwise, it came within that control. It was a point which, though of great interest, he had not thought to be, strictly, the sort of subject to be discussed in his paper. Mr. Figg had also asked whether he would express some view about the Jenkins case. What Mr. Figg was asking was whether that case had relevance today. The whole thing turned on the interpretation of the Society's powers to act in protection of its members; and the things that the Court had been asked to decide included, among others, the fixing of hours of business, the fixing of prices, and acting as an insurance concern. The court held that certain of those matters, at any rate, were outside the powers of the Society, because when the Charter was granted and the Society was created it was not conceivable that trade union powers could be given to it, since those were at that time illegal in any case. The 1933 Act had set up a Statutory Committee to control the conduct of pharmacists—a change in the law which was, of course, extremely relevant. The Supplemental Charter of 1953 had altered that particular object of the Society from "the protection of chemists and druggists" to "maintaining the honour and promoting the interests of the members in their exercise of the profession of pharmacy." If the Statutory Committee came to the conclusion that it was unprofessional, say, to break a rota agreement—he put the point hypothetically—and that were regarded by the High Court as a proper exercise of the Committee's powers, it would undoubtedly be upheld. The Jenkins case had no relevance.

Twenty-four Hours a Day?

Mr. Clarke had mentioned the passage in the paper about the pharmacist being always on duty, and other speakers had suggested that he appeared to expect them to work twenty-four hours a day. The point was not that the pharmacist should be available all the time, but that the pharmacist had a responsibility to the public to do his best to make sure that, when needed, medicines would be available. What form co-operation should take—compulsory or voluntary—was a matter for consideration. The Sheffield scheme, paralleled in other towns, did not provide for a night service. Provision for an emergency service during the night should be made.

It had been said that doctors were paid to give emergency treatment. That was something that they all recognised,

but it was dangerous to allow that situation to influence one too far in dealing with the question of an emergency service. One of the biggest problems in pharmacy was to achieve a different service from that of medicine.

Any idea that companies were treated differently from individual firms in that sort of matter was not correct. Miss Smith had suggested that inspectors should have the power to inspect hospitals. It was a question of law. They were concerned in the discussion not with law, but with standards of conduct not controlled by the ordinary law of the land. One thing was very obvious: that they were still in the stage of trial and error so far as professional conduct was concerned. Mr. Robinson had called attention to the pharmacist's responsibility. Everybody would agree in principle with that view, but it could only be done by education. The present practice of issuing statements was the best way in the circumstances.

The question of rotas had not yet reached a point when the Council could deal with the matter.

Whether the Society's inspectors were *agents provocateurs* depended on the point of view; he supposed that anyone who went into a shop and made a test purchase could be so regarded.

Mr. Holland, in his point, that statutory control derived from the fact that every pharmacy sold poisons, was wrong. It was just the things that were allowed by the law that were controlled by the Statutory Committee.

Mr. Caldwell had referred to the line between things that were poisons and things that were not poisons. The question was how to control those that were dangerous to the public though not poisons. On the question of a code for manufacturers, all the Society could be concerned with as a Society was the pharmacists engaged in industry.



QUALIFIED TO WISH: By encircling the Wishing Cross at Glendalough, Co. Wicklow, Mr. T. C. Denston (secretary, British Pharmacopoeia Commission) passes the test that entitles him to make a wish. If it was for fine weather, it was not granted

CONFERENCE PERSONALITIES



MR. D. J. KENNELLY
Secretary, Conference Local Committee

PROFESSOR WESLEY COCKER, M.Sc., Ph.D., M.A., Sc.D., F.R.I.C., F.I.I.C., M.R.I.A., who is the co-author of a paper on the preparation of some derivatives of santonin with possible anthelmintic activity, is university professor of chemistry at Trinity College, Dublin. Professor Cocker is a native of Oswaldtwistle, Lancs, and was educated at Accrington Grammar School, and Manchester University, from which he graduated B.Sc., with first class honours, as graduate prize-man and scholar. He gained his M.Sc. from that University in 1929 and his Ph.D. in 1931. He was a Dalton chemical scholar and a Bever fellow at that University and was private assistant to the late Professor A. Lapworth, 1931-32. Professor Cocker was a member of the staff of the Dvestuffs Group of Imperial Chemical Industries, Ltd., 1931-32. In 1934 he became manager of Dickinson & Son (now Cocker Chemical Co., Ltd.). In 1937 he became assistant lecturer at the University College of the South-west of England, Exeter, and in 1939 went to Kings College, Durham University, as a lecturer, in which post he remained until 1946, when he was appointed to his present position. Professor Cocker has had over seventy publications in scientific periodicals, mainly on the chemistry of amino acids and the terpenes. His other interests are music and railway organisation.

DR. N. P. BURMAN, B.Sc., Ph.D., F.I.M.L.T., P.A.I.W.E., who is the co-author of a symposium session paper on potato water, is senior bacteriologist in the water examination department of the Metropolitan Water Board. Dr. Burman began his career as laboratory technician at the Willesden Municipal Hospital, where he remained for twelve years. He obtained his B.Sc. from London University in 1936, followed by the certificates in bacteriology and chemical pathology of the Institute of Medical Laboratory Technology. He joined the Metropolitan Water Board in 1945 as senior assistant

bacteriologist and has held his present post since 1950. He obtained the Ph.D. degree of London University in 1954 for a thesis on "Microbial Antagonism to *Bact. coli* in Soil." The Houston medal was awarded to him jointly with two other colleagues in 1956 by the Institution of Water Engineers for a paper on membrane filtration technique applied to the routine bacteriological examination of water and he was awarded Gans medal in 1956 by the Society for Water Treatment and Examination, for a paper on the standardisation of bile salt and peptone.



DR. E. DOWLING
Chairman, Publicity Committee

MR. N. C. CHAUDHRY, B.Pharm., who is the co-author of a paper on sustained release of drugs from ion exchange resins, is a research student in the pharmaceutical chemistry department of the School of Pharmacy, University of London. He obtained his degree from Punjab University in 1947, and after working for about two years in the laboratories of the public analyst to the United Provinces Government at Lucknow, he joined the medical department of the Punjab Government as divisional inspector of drugs. He remained in the post until 1954, when he commenced his present research work at London University. Mr. Chaudhry also served as a member of the State Pharmacy Council of the Punjab, 1952-54.



Mr. N. C. Chaudhry



Mr. K. J. Steel



Mr. J. McShefferty

DR. D. D. TRAIN, M.C., B.Pharm., F.P.S., B.Sc., (Eng), Ph.D., A.C.G.I., D.I.C., A.R.I.C., who is the author of a paper on the compaction of powders, is a lecturer in the department of pharmaceutics at the School of Pharmacy, University of London. Dr. Train served a retail apprenticeship with S. T. Roper & Daughter, Kington, Herefords. In 1940 he was awarded the Fairchild scholarship to the Pharmaceutical Society's School of Pharmacy in London, from where he qualified as a chemist and druggist and was awarded the Hewlett Exhibition in 1941. In 1942 he graduated B.Pharm. (London), being awarded the silver medal in pharmaceutics. From 1942-45, Dr. Train served in the Royal Army Medical Corps, and in 1945 he was awarded the M.C. In 1945 he returned to the Society's School as assistant lecturer in the department of pharmaceutics, and then was given leave of absence to take the degree of B.Sc. (Chemical Engineering) at Imperial College of Science, London, S.W.7. He graduated in 1947 with first class honours, and returned to the School of Pharmacy (now of London University) to develop the subject of pharmaceutical engineering science. He was awarded the Ph.D. degree in 1956.

DR. G. E. TREASE, B.Pharm., D. de l'U., F.R.I.C., F.L.S., who is the co-author of a paper on the pharmacognosy of the *Astidiosperma* barks of British Guiana, is director of pharmaceutical studies and head of the Department of Pharmacy, Nottingham University. He was educated at Nottingham High School, and qualified as a chemist and druggist in 1924 and as a pharmaceutical chemist in 1925. From 1925-45, Dr. Trease was a lecturer in the Pharmacy Department, Nottingham University. He gained his B.Pharm. degree in 1932, became a Fellow of the Law Society in 1936, an Associate of the Royal Institute of Chemistry in 1937 and a Fellow of the Institute in 1942. He was awarded the D. de l'U. (Strasbourg), *honoris causa* in 1954. From 1943-4, Dr. Trease was acting head of the Department of Pharmacy, Nottingham University, and in 1945 he became reader in pharmacology and head of the Department. He took up his present position in 1949. He has been an examiner for the Pharmaceutical Society since 1934, and for the University of Nottingham since 1950; he was an examiner for



Mr. A. A. J. Fluck



Mr. S. A. Wood



Dr. Ethna Gaffney



Mr. S. Simic



Dr. N. P. Burman

London University (external), 1937-45, (internal) 1950-53; for Queen's University, Belfast, 1949-52; and for Glasgow University, 1950-53; for the University of Wales, 1945-48, and 1954 to date; for Benares Hindu University, 1950 and 1951; and for Andhra University (for the D.Sc. thesis) in 1953. Dr. Trease is a past chairman of the Nottingham Branch of the Pharmaceutical Society and of the Board of Studies in Pharmacy, University of London, and the examination syllabus committees of the University of London and the Pharmaceutical Society. He is a past member of the Commodities Intelligence Section of the Ministry of Economic Warfare. He is at present chairman of the Pharmaceutical Society's History Committee and a member of its Films Committee, a member of the British Pharmaceutical Codex Pharmacognosy Revision Committee, and corresponding member of the Societe d'Histoire de la Pharmacie (Paris) for Great Britain. He has published numerous books, papers, lectures, etc., on pharmacognosy and general pharmaceutical and allied subjects.

DR. ETHNA E. GAFFNEY, M.Sc., Ph.D., who is the co-author of a paper on anti-tuberculosis activity in the phenazine series, is lecturer in chemistry and physics at the Royal College of Surgeons in Ireland. She obtained her B.Sc. degree at University College, Galway in 1940, and the M.Sc. in 1941 from University College, Dublin. Having received a grant from the Medical Research Council of Ireland, she worked for a further three years in the biochemistry department of the University, under Professor E. J. Conway, on the development of Conway micro-diffusion techniques for the determination of blood urea and blood glucose, and on the interchanges of electrolytes across the yeast cell membrane during fermentation. Dr. Gaffney was awarded the Ph.D. degree in 1945, and a diploma in bacteriology from Kevin Street Technical School, Dublin. In 1944 she was appointed science lecturer to the dietetics group, St. Mary's College of Domestic Science, Dublin, a position which she resigned subsequent to her marriage in 1948. In September 1952, Dr. Gaffney was awarded a Lasdon research fellowship in bacteriology, and worked for two years under Dr. V. C. Barry, director of the Medical Research Council of Ireland Laboratories, Trinity College, Dublin, on the chemotherapy of tuberculosis. She relinquished her research grant in 1954 to take up her present position. Dr. Gaffney's husband, who was a clinical pathologist at Trinity College, Dublin, was killed in an

air crash in January, 1952. She has three children, and is interested in cooking, gardening and golf.

DR. S. E. WRIGHT, who is the co-author of a paper on paper chromatographic detection of new constituents of *Digitalis lanata*, is senior lecturer in pharmacy at the University of Sydney and a member of the Pharmacy Board and Council of the Pharmaceutical Society of New South Wales. Dr. Wright qualified as a pharmacist in New South Wales and then took the Diploma in Pharmaceutical Science of the University of Sydney. He was then appointed teacher of pharmacy subjects at the Technical College, Brisbane, Queensland, and whilst teaching took a science degree for the University of Queensland with first class honours in chemistry. He was then appointed lecturer in chemistry at that University. In 1946 he went to Wellington, New Zealand, as principal of the Pharmacy College. He returned to Sydney University in 1951 and has since taken a Ph.D. Degree from that University. Dr. Wright is at present spending a year abroad on study leave from the University and will attend the Dublin Conference meeting en route from Switzerland, where he has been working at the Organic Chemistry Institute in Basle, to the United States.

DR. RICHARD TIMONEY
Science liaison officer

MR. K. J. STEEL, B.Pharm., F.P.S., who is the co-author of a paper on the reproducibility of extinction time estimates served a retail apprenticeship and after

national service in the R.A.M.C. as a sergeant-dispenser, qualified as a chemist and druggist in 1952. He graduated B.Pharm from Nottingham University in 1954, and is now assistant lecturer in pharmaceutics at the School of Pharmacy, University of London. He is engaged in research for the Ph.D. degree. His "only serious sport" is fencing.

MR. A. D. METCALF, B.Pharm., F.P.S., who is the co-author of a paper on non-ionic surface active agents, began his career in retail pharmacy at St. Helens. He graduated B.Sc. (Pharm.), from the University of Manchester in 1955, and was registered as a pharmaceutical chemist in January 1956. He is at present demonstrator in pharmaceutics at Chelsea Polytechnic and undertaking research in the properties of non-ionic surface active agents.

MR. M. F. WALSH
Transport liaison officer

MR. P. F. NELSON, B.Sc. (Pharm), M.P.S., who is the co-author of two papers on *Leontice leontopetalum*, is a lecturer in pharmacognosy at the School of Pharmacy, Royal Technical College, Glasgow. Mr. Nelson took his degree from the college, and after graduating with honours he went to China in 1946 and from 1947-51 was a lecturer in the Pharmacy Department, Cheeoo University, Tsinan, North China. He then returned to Britain, and took up his present position in 1952. In 1954 he paid a visit to Beirut, Lebanon, in connection with research into *Leontice leontopetalum*. His special interests are the Student Christian movement and the Rover Scout movement.

MR. S. SIMIC, who is the co-author of a paper on fermentative degradation of *Digitalis purpurea* leaf, was educated in Belgrade and in 1940 enrolled as a pharmacy student at Belgrade University. Owing to the 1939-45 war, the University closed and Mr. Simic became a retail pharmacy apprentice, but after the war he resumed his studies at the University and graduated in 1948. After graduation he worked for three years in the Research Institute for Medicinal Plants in Belgrade. In 1951 he became a lecturer in the Institute of Pharmacognosy. During 1953-54 Mr. Simic carried out research under the direction of Dr. J. H. Rowson in the laboratories of the Pharmaceutical Society's museum on the chemical evaluation of the potency of the leaves of *Digitalis purpurea*. He then returned to Yugoslavia for a year, after which he again came to England and is now continuing his research studies on *Digitalis* in the Society's museum laboratories for his Ph.D. degree.

MR. S. A. WOOD, B.Sc., who is the co-author of a paper on the chemical assay of cascara, is senior research chemist with Stafford Allen and Sons, Ltd. He was educated at Bancroft's School, Woodford, and then, after serving one year in the laboratories of T. H. Harris and Sons, Ltd., joined Stafford Allen and Sons, Ltd., as a laboratory assistant in 1942. He graduated at London University in 1949, having taken a part-time course at the South-west Essex Technical College, Walthamstow, and was promoted to his present position in 1954. His outside interests include photography, woodwork and Scouting.

MR. J. McSHEFFERTY, B.Sc., F.P.S., who is the co-author of a paper on *Leontice leontopetalum*, served a retail apprenticeship in Glasgow and Gourock, 1947-49. In 1953 he graduated B.Sc. with first class honours in pharmacy from the Royal Technical College, Glasgow, and was awarded the Associateship of the College with first class honours in pharmacy. He became assistant lecturer in pharmacy at the Royal Technical College, and in 1954 was awarded an educational grant from the Pharmaceutical Society to enable him to do full time research for a Ph.D. degree.

MR. T. B. H. McMURRY, B.A., who is the co-author of a paper on the preparation of some derivatives of santonin with possible anthelmintic activity, obtained his degree from Trinity College, Dublin, in 1953, being a gold medallist in experimental science. Since then he has been reading for a Ph.D., working under Professor W. Cocker. In September 1955, he was appointed assistant lecturer. Although his research topic has been some aspects of santonin chemistry, his interests extend to related natural products.

Mr. A. A. J. FLUCK, B.Sc., who is the co-author of a paper on the chemical assay of cascara, is a research chemist with Stafford Allen and Sons, Ltd. He was educated at Selhurst Grammar School and King's College, London, from which he graduated in chemistry in 1953. After completing national service in the Army he took up his present post in 1955.

SCIENCE SESSIONS

(Continued from p. 284)

At the conclusion of the paper on "Extinction Time Estimates" THE CHAIRMAN invited discussion.

Answering questions on the paper, MR. WILLS informed the Chairman that only a limited number of total counts of bacteria in suspension had been carried out. He would not like to give the limits of error. The results were approximately constant. To MR. J. A. VICKERS, Sunderland, he said that no allowance had been made in the initial determinations for clumps of organisms. He agreed with DR. G. E. FOSTER, Dartford, that the numbers of bacteria did not increase in excess of the original number, at least prior to reincubation. He thought that the washed suspensions did not suffer from errors in standardisation suggested by MISS A. E. ROBINSON, London. To DR. A. H. BECKETT, London, he said that it would be interesting to experiment with different bactericides, but he did not think that would alter the validity of results with a single bactericide.

The third paper, a sequel to a paper on the examination of rubber at the Aberdeen Conference meeting in 1955, was:

An Examination of Rubber Used as a Closure for Containers of Injectable Solution.

Part II. The Absorption of Chlorocresol.

W. T. WING.

THE examination of rubber has continued with the investigation of the absorption of chlorocresol. The method of estimation of chlorocresol was based on the production of a blue colour with Folin-Ciocalteau reagent in alkaline solution. Results showed that whereas the absorption of chlorocresol by rubber is rapid at 2° C. and about 75 per cent. of the final absorption is achieved in three days, complete absorption is not reached until about seven weeks after contact with the solution. Absorption is almost complete in one day when stored at 37° C. Whereas the amount of chlorocresol absorbed was directly proportional to the concentration of the immersing solutions, that was less at 37° C. than at 2° C. (approximately 86 per cent. and 92 per cent. respectively).

A series of rubbers was examined to determine the amount of chlorocresol absorbed under several set conditions. In all instances there was a higher absorption of chlorocresol at 2° C. than at 37° C., but variation of the concentration of the immersing solutions between 0.1 per cent. and 0.2 per cent. had little effect upon the partition coefficient. The proportion of chlorocresol absorbed was much higher than had been found with phenol in previous experiments. For silicone tubing it was just over 50 per cent., for translucent latex-rubber tubings it was between 73 and 80 per cent., and for other rubbers up to 91 per cent. That resulted in partition coefficients approximately twenty times greater than for phenol with the same rubber.

Part III of the same paper was also read. It was:

The Effect of the Chemical Composition of the Rubber Mix on Phenol and Chlorocresol Absorption.

W. T. WING.

OWING to the variable composition of rubber, certain constituents in the mix may increase or decrease the absorption of phenol or chlorocresol. Several rubbers of known composition have been examined in which the fillers, accelerators and vulcanisers have been varied.

Eight rubber mixes were prepared, containing three fillers having the possibility of chemical interaction, namely zinc oxide, magnesium carbonate and calcium carbonate, and four which exert a reinforcing action to the rubber matrix, namely china clay, VN3, a precipitated silica, lampblack and philblack, the remaining mix containing the curing ingredients only. All the mixes were vulcanised in a press for twelve minutes at 60 lbs. per sq. in. steam pressure (approx. 153° C.). Approximately 2 cm. of each sample of rubber were placed in tubes containing 10 mils. of 0.5 per cent. phenol solution or 0.1 per cent. chlorocresol solution and the tubes sealed. The rubber in phenol solutions was stored for fourteen days at 37° C., and that in chlorocresol solutions stored at 37° C. for twenty-three days. All were then opened, and determinations made of the phenol or chlorocresol content of the solutions. In all instances the partition coefficients were calculated for each sample. It was seen that, apart from the VN3 — a precipitated silica — which resulted in a higher degree of absorption, the addition of the fillers mentioned did not influence the amount of absorption to any marked extent.

Further rubber mixes were prepared to show whether variation in the amount of filler had any effect on the phenol or chlorocresol absorption. Results showed that VN3 used as a filler increased phenol and chlorocresol absorption and that was related to the amount of filler present. Calcium carbonate had little effect on that property even when the calcium carbonate content of the mix varied considerably.

Four samples differing only in sulphur content were stored with phenol and chlorocresol solutions under the same conditions as mentioned above. Although the degree of absorption of chlorocresol rose slightly with an increase of the sulphur content of the mix, variation of the latter from 1 to 2.5 parts of sulphur had little influence upon the extent of phenol and chlorocresol absorption.

Samples containing between 0.5 and 5.0 parts of zinc oxide were stored with phenol and chlorocresol solutions under the same conditions. The results showed variation in the zinc oxide content to have no significant effect.

Three rubber mixes were prepared containing as accelerators (1) dipentamethylenethiuram disulphide; (2) tetramethylthiuram monosulphide; and (3)

a mixture of benzothiazyl disulphide, which breaks down to mercaptobenzo-thiazole, and tetramethylthiuram disulphide. They were cured for six minutes at 60 lb. per sq. in. steam pressure (approx. 153°C.). Samples containing those accelerators were subject to storage in contact with phenol and chlorocresol solutions, and the partition coefficients calculated. Those were compared with a sample in which Santocure was used as accelerator, but which was subject to twelve minutes' curing at 60 lb. steam pressure. There was little difference between the three mixes in phenol and chlorocresol absorption, but they all showed a higher absorption than the mix, in which Santocure was used as the accelerator, though the curing time was twice as long for the latter.

A rubber mix to which had been added twenty parts by weight of Factice (a plasticiser), gave results which showed that the presence of that substance causes a marked increase in phenol and chlorocresol absorption.

The author concludes that variation in the natural rubber used can result in a difference in the amount absorbed by the cured rubber mix.

From the Pharmaceutical Department, Newcastle General Hospital.

Discussion

DR. G. E. FOSTER, Dartford, asked how the samples were divided for the tests?

MR. R. L. STEPHENS, Brighton, said that different vulcanisers had different effects on the rubber. Had the author considered determining the equilibrium constant using the same mix of rubber but giving different vulcanisation times?

MR. F. G. FARRELL, London, said his results using both strips and moulded caps made to the same formula confirmed those of the author, but showed the absorption varied with the area of the surface exposed. What were the diameter and thickness of the tubing used by the author? Had he also noted that some of the chlorocresol passed through the rubber into the air?

MR. D. H. MADDOCK, Romford, said he could see no practical value in the methods and results obtained by Mr. Wing. Mr. Wing had used mixes which were probably never used in practice. He had shown no relationship between sizes of closures, shelf-life of the preparation, etc. He had confined his work to a limited field.

MR. G. R. WILKINSON, London, asked whether the speaker had noticed any influence of exposure to chlorocresol on the physical behaviour of the rubber, e.g., would it rise after puncturing with a needle, etc.?

DR. J. C. PARKINSON, Brighton, asked whether, after storage in that way, there was any further absorption of chlorocresol when the caps were put into use?

MR. T. D. WHITTET, London, asked whether the author had looked into the physical properties of various mixes?

MR. W. P. HUTCHINSON, Oxford, said when rubber was irradiated after soaking in certain organic compounds, a film was formed which was impervious to oil, etc., and might be impervious to chlorocresol. Rubber could be sterilised by irradiation without adverse effect.

MR. W. T. WING, replying, said the samples used were approximately $\frac{1}{8}$ " thick, $\frac{1}{4}$ " wide and 5cm. long, and were cut from sheets. The rubbers prepared for his experiments had been subjected to different heating times. There was little difference in absorption in any case. Chlorocresol did permeate the rubber. Silicone caps were entirely unsatisfactory, they were not elastic enough and not self-closing. Absorption did not proceed beyond a point of equilibrium under certain conditions of storage. He had looked into the physical properties of different mixes, but had given no published details of those. The present investigation would lead to a determination of the physical properties of those which had been found satisfactory from an absorption point of view. The surface of rubbers could be altered under certain conditions and a protective coating formed which would reduce absorption.

The next paper was:—

Compaction of Powders DAVID TRAIN

A STUDY has been made of the transmission of forces through the compacting mass when a mass of powder is compressed into a coherent tablet, compact or pellet, and of the effects of those forces within the mass. A horizontally split die was designed in which there were eight sections of uniform depth. Heavy magnesium carbonate, B.P., was selected as the material for the pressings because it had constant powder characteristics of shape and size; was free flowing; packed consistently; did not cake during storage; did not affect the materials of the die-set; cohered when compressed, etc. The most striking observation was how different were the relative displacements of layers of material when compacted at the same pressure but differently lubricated. A second observation was the presence in the compact of cracks of two types, the first a split near the top, the second concave in a downward direction and seen in sections of the unlubricated compacts subjected to the heavier pressures.

Individual particles of powder of a pressing made at 2.5 kilos/sq.cm. were easily removed from the surface of a cut cross-section using a camel-hair brush; in a pressing made at 62 kilos/sq.cm. the particles were harder to dislodge; at 90 and 145 kilos/sq.cm. there was a definite keying and bonding of the particles; at 336 and 671 kilos/sq.cm. the compacts had become firm and the outline of individual particles was difficult to trace even under a low-powered microscope; for pressings made to 1358 and 2040 kilos/sq.cm. the compact to all appearances was a solid block. At all stages a "skin" was produced where the compacts had been in contact with the die-walls, and the particles in that region were always relatively more distorted and bonded together than those situated within the compact. "There is a stage at which the powder has formed a structure which, though still porous, is strong enough to support the applied pressure and the natural elastic properties of the material become important." Further increase in volume takes place as the

compact is ejected from the die. It would appear that elastic recovery takes place only to a limited extent within the die, frictional forces on the walls opposing complete relaxation, especially in the unlubricated die. With the lubricated compacts a region of greater apparent density occurs in the top corners of all pressings, and a region of lower apparent density in the bottom corners. In the body of the pressings are a region of lower density near the top centre and a region of higher density about two-thirds of the way down. The region of higher density on the centre-line is roughly of the same magnitude as that in the top corners, and those regions are connected by "ridges" exhibiting a lower density. A similar picture is seen in the results of the unlubricated pressings. The region of higher density found in the lower centre portion of the compacts could explain the empirical observation in a disintegration test that the outer layers of the tablet disintegrate and slough away rapidly, leaving a core which requires a longer period before it breaks up. It is probable that the condition of cracking is present to a greater or lesser extent in all compacts, and the condition is suggested as the basic cause of the phenomenon called "capping" (where the top of the pellet or tablet becomes detached or can be removed with the thumb nail or will fall off when a few tablets are shaken in a bottle).

From the Department of Chemical Engineering, Imperial College of Science and Technology, and the Department of Pharmaceutics, School of Pharmacy, University of London.

Discussion

MR. BULLOCK said there seemed to be two types of people who made contributions on tablets: those in charge of large tablet-making departments, and those with a purely academic approach. The gap between them seemed now to be narrowing.

DR. F. HARTLEY, London, made reference to the "fantastic mysticisms" of the compression of powders. He was intrigued by Mr. Train's choice of mag. carb. pond. as the material for test. A basic substance might be expected to give rise to complications due to moisture content. The paper made no reference to moisture content. Was all the material, too, of the same batch? Was it uniform? Were there any additional complications?

MR. E. W. RICHARD, Upminster, was disturbed that the author went far from the normal conditions of manufacture, using a material in much finer powder than normal granulations; using a simple substance; lubricating die walls and punch faces rather than the granules (and that might affect internal pressures); applying pressures at two-minute intervals instead of the single stroke of manufacturing practice (and the rate of compression had a considerable effect on the product); using flat instead of concave punches; and arranging extrusion in the same direction as the pressure was applied. It would be interesting to know the findings if the methods were applied to other materials and conditions.



ON THE DANCE FLOOR: Mrs. Harry Steinman, Manchester (wife of the President, 1955-56, of the Pharmaceutical Society of Great Britain) partners Mr. S. Campbell, Londonderry (President, Pharmaceutical Society of Northern Ireland) at Clery's ballroom, Dublin.

Was the author aware of a difference between capping and cracking?—the first a breaking away of a surface layer and the second a horizontal splitting.

Mr. H. BURLINSON, Ashton-under-Lyne, said the author had wisely drawn only tentative conclusions on the explanation of capping. Pressure alone was not the last word. Like Dr. Hartley he was surprised at the powder used. Had Mr. Train any experience with organic materials, more usual substances for tablet manufacture?

MR. A. AXON, Dartford, asked how the carmine had been incorporated, and what was the shape of the particles. Were they discrete particles or aggregates? What was the reason for the use of a horizontally split die? Was it significant that the split at the top appeared between the least compacted layers? It was difficult to appreciate the rigid stages of the diagrams. A smooth curve would have been expected.

MR. TRAIN said in reply that he had intentionally chosen an easy substance, with no packing troubles. He had made an extensive review of the literature and decided that initially the substance chosen was not of great moment. The batch had been large. It had been sifted for days, and dried for twenty-four hours at 210°. It had been allowed to humidify and sealed in 80 gm. quantities, each of which had been utilised just before compression. The moisture content had been about ½%. He had not intended that the conditions should be in any way near those of manufacture. "It is about time we got away from them." He had essayed "a shot of fundamental science." Flat discs had been used for the convenience of putting on rings as the die was filled. Manufacturers, he asserted, used lubrication for ease of putting in the material, but he was hoping to see the effects of lubricants on the wall side and not within the powder. Details were available to those interested of the stresses applied. They ranged over forty pressure levels. The

extrusion in the direction of pressure had been decided upon to avoid altering the layers by pressure from the base.

The next paper, which was read by MR. ARNOLD AXON was:—

The Rheology of Oil-in-water Emulsions

1. The Effect of Concentration of Constituents on Emulsion Consistency

ARNOLD AXON

A VARIABLE speed rotational viscometer was used to determine the consistency of a series of oil-in-water emulsions containing liquid paraffin, cetyl alcohol, sodium lauryl sulphate and bentonite. The author describes the effect on the consistency of changes in the concentration of each constituent of the emulsion. All the unautoclaved emulsions showed thixotropic shear-rate thinning. Over a wide range of concentration of each constituent the autoclaved emulsions containing from 1 to 3 per cent. of bentonite showed thixotropic plastic flow. The autoclaved emulsions gave values for plastic viscosity and yield value which conformed to a definite pattern. The plastic viscosity was directly proportional to the bentonite, sodium lauryl sulphate, and liquid paraffin content of the emulsion but increased exponentially with increase in the cetyl alcohol content. The yield value was directly proportional to the bentonite content up to 2 per cent., but tended to increase exponentially above 2 per cent. at the higher concentrations of sodium lauryl sulphate and cetyl alcohol. The yield value was directly proportional to the sodium lauryl sulphate content above 0.4 per cent. for emulsions containing 8 and 10 per cent. cetyl alcohol. The yield value increased exponentially with increase in the cetyl alcohol and liquid paraffin content.

From the Wellcome Chemical Works, Dartford, Kent.

Discussion

Mr. E. W. RICHARD, Upminster, asked whether the author meant that if the globule size were reduced, in some cases a thickening was obtained, in others a thinning. Those two effects might be explained thus:—that in the first case the emulsifier was more soluble in the oil than in the water; in the second, it was more soluble in the water, and on homogenisation, most of the emulsifier migrated out from the water to the interface, thereby lowering the viscosity of the continuous phase. An



BACK-ROOM BRIGADE: While others went on the Conference excursion, Mr. L. Pelly, Dr. Eoin Dowling, Miss A. Esmond and Mr. T. R. Miller remained on duty in the Conference office.

empirical test could be done on semi-solid emulsions using the penetrometer.

MR. AXON, replying, said that Mr. Richard had cited cases including two different emulsifying agents, but for the work reported in the paper he had kept to one primary agent. Mr. Richard's tentative hypothesis had been recorded elsewhere, though he (Mr. Axon) did not agree with it. Penetrometer values were limited in their application and were only useful for empirical control in production batches. They were of little use in determining yield value and plastic viscosity.

The next paper was read by DR. B. A. MULLEY. It was:—

Non-ionic Surface-active Agents

I. Solubility of Chloroxylenol in Aqueous Solutions of Polyethylene Glycol 1000 Monocetyl Ether

B. A. MULLEY and A. D. METCALF
THE solubility curve of chloroxylenol in aqueous solutions of polyethylene glycol 1000 monocetyl ether at 20° C. is reported. It is not of the form normally exhibited when water-insoluble substances are dissolved in aqueous solutions of surface-active agents. The curve shows that the solubility of the phenol is directly proportional to the concentration of the surface-active agent, and that the solubility limit is reached at a molar ratio of phenol to surface-active agent of about 1.9:1. Evidence is given, based on the ultraviolet absorption spectra of chloroxylenol in cyclohexane and in a solution of polyethylene glycol 1000 monocetyl ether, that hydrogen bonds are formed between the phenolic hydroxyl groups and the ether chains of the non-ionic surface-active agent. It is suggested that a hydrogen-bonded complex of the phenol surface-active agent and water is precipitated at the limit of solubility due to a reduction in the hydrophilic character of the micelles.

From the Pharmaceutics Laboratories, School of Pharmacy, Chelsea Polytechnic, London, S.W.3.

Discussion

MR. J. W. HADGRAFT, London, asked whether the formation of complexes between phenols and ethylene glycols accounted for the phenomena reported. Was the complex formation concerned only with the oxygen in the ether chain or the surface-active agents?

DR. L. SAUNDERS, London, suggested that diffusion measurements would help in elucidating the structure of the solutions.

MR. J. H. OAKLEY, Shepperton, asked whether there was some suppression of bactericidal activity in proportion to the amount of non-ionic surface-active agent present. Did the authors feel that the non-ionic approach to formulation would overcome some of the incompatibilities given by ionic formulations?

DR. MULLEY, replying, said that phenols and glycals did form a complex in solution, but it was not solubilised by the phenol in the glycol. The authors' method was not sensitive enough at the very low concentration necessary to show the critical micelle concentration. A high concentration of non-ionic surface-active agent—in excess of that needed to solubilise the phenol—might well lower the bactericidal activity.

TRADE NOTES

Improved Container. — Cow and Gate baby powder is now issued in an improved tin with rotor cap top. The makers are Cow & Gate, Ltd., Guildford, Surrey.

Now in Tube Pack. — Genatosan, Ltd., Loughborough, Leics, announce that their speciality, Acnil (1 oz.) which has in the past been supplied in a jar, is now being issued in a tube.

Improved Sachet. — Vaseline liquid shampoo is now issued in a sachet of new design, with the advantages that the top is simply torn off (no scissors required) and that, if desired, only part of the contents may be used and the sachet simply folded over to hold the remainder. The manufacturers of the product are Cheshire Ponds, Ltd., Wadsworth Road, Perivale, Middlesex.



Paper Box Contest. — Members of the panel appointed to judge the entries in the third Design Contest organised by the British Paper Box Federation and the British Carton Association, in co-operation with the Council of Industrial Design, Society of Industrial Artists and Institute of Packaging (C. & D., April 21, p. 292) are Mrs. Alison Settle (Council of Industrial Design), Mr. Frank Mortimer, F.R.S.A., M.S.I.A., Mr. Cecil D. Notley, F.I.P.A. (Advertising Association), Mr. A. H. Cragg (a director, Boots Pure Drug Co., Ltd.), Mr. H. E. Traves, Mr. W. H. Copeland, and Miss Jeanne Heal. Judging takes place on November 20. The contest is open for entries, October 1-31.

Bonus Offers

CAMILATONE, LTD., Edgware Road, London, N.W.9. Tonrinz and henna-cream. 5 per cent. on parcels between £2 and £3; 7½ per cent. on parcels of £3 and over. 2½ per cent. for cash within seven days. Until October 31.

EVAN WILLIAMS CO., LTD., Aintree Road, Perivale, Middlesex. Introductory offer. One doz. Tulip tissues free with three doz. ordered.

MENLEY & JAMES, LTD., Coldharbour Lane, London, S.E.5. Benzedrex inhaler. Thirteen for price of twelve.

VELVET CREPE PAPER CO., LTD., Alperton, Middlesex. Mixed parcel value 57s. invoiced at 32s. 6d. (one order only).

VITAMINS, LTD., Upper Mall, London, W.6. Bemax and pharmaceuticals. Until October 6. 10 per cent. on orders value £5 to £10; 12½ per cent. on orders value £10 and over.

COW & GATE, LTD., Guildford, Surrey. Cow and Gate baby powder. One shilling per doz. ordered between September 1 and November 30.

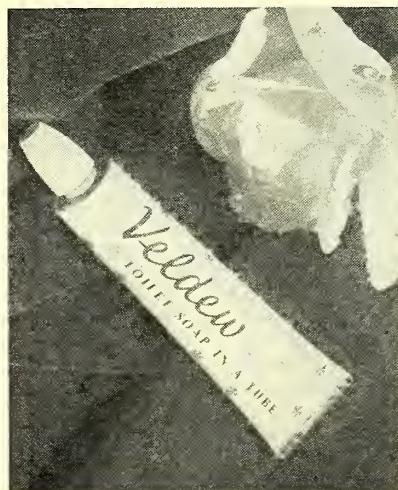
NEW PRODUCTS AND PACKS

Improved Inhaler. — A new inhaler, the Benzedrex, introduced by Menley & James, Ltd., Coldharbour Lane, London, S.E.5, for Smith, Kline & French, Inc., U.S.A., replaces the previous Benzedrine inhaler. It contains propylhexedrine, the American company's new nasal vasoconstrictor, and aromatics. A display pack is available.

Multi-layer Asthma Tablets. — Boots Pure Drug Co., Ltd., Nottingham, have introduced two new specialities for the sustained relief of bronchial asthma. Fydal, for use by night, contains butobarbitone, ephedrine, theophylline and isoprenaline; and Fydalex, for use in the daytime, contains ephedrine, theophylline, and isoprenaline, but replaces the 48 mgm. of butobarbitone with 96 mgm. of carbromal. Both tablets have an outer tablet-coating containing the isoprenaline sulphate for instant relief, a centre layer of carbromal or butobarbitone for sedation, and an inner nucleus of ephedrine and theophylline to give prolonged relief. Each product is issued in foil pack of ten tablets.

"3D" Relief in Migraine. — Burroughs Wellcome & Co., 183 Euston Road, London, N.W.1, have introduced a new speciality, Migril brand ergotamine compound (compressed), for the treatment of migraine. Migril contains ergotamine tartrate, 2 mgm.; cyclizine hydrochloride, 50 mgm.; and caffeine alkaloid, 100 mgm. The unusually high dose of ergotamine is made possible by the inclusion of the cyclizine, the action of which is to counter the common side-effects of ergotamine therapy, namely nausea and vomiting. The cyclizine is claimed to counter also the nausea and vomiting due to migraine itself, and the ergotamine and caffeine to act synergistically to relieve both headache and the ocular disturbances of migraine. The product is issued in bottles of ten and 100 tablets.

Toilet Soap in a Tube. — E. Griffiths Hughes, Ltd., P.O. Box 407, Adelphi, Salford, 3, Manchester, are launching

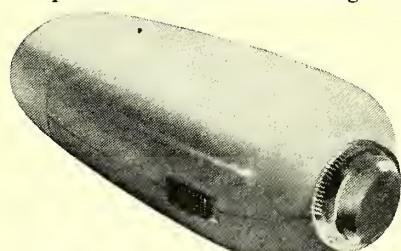


Veldew "soap in a tube"—the tube small enough to slip easily into a handbag. A squeeze of the tube delivers

enough super-fatted soap for washing the hands, and the tube contains enough for repeated uses.

An "Extra-meat" Dog Food. — Pet-foods, Ltd., Melton Mowbray, Leics, are marketing a new "extra-meat" Lassie, containing also the liver present in the previously popular Lassie dog food.

Rechargeable Pocket Torch. — Chilton Electric Products, Ltd., Hungerford, Berks, have introduced a new electric pocket torch which is rechargeable



from any alternating-current 5-amp. mains plug or light socket. The Accu Lux torch cannot be overcharged, is convenient in size, weight and shape for carrying in pocket or handbag, and is virtually unbreakable. It is less than 5 in. long, and under 4 oz. in weight. Accessories include an illuminated magnifier, green and red filters for photographic use, an adaptor for charging, and an "any-angle" holder. The two pins for inserting into mains plugs are normally concealed by a cap. Fully charged, the torch gives continuous light for 100 minutes, or intermittent light for 200 minutes. Once charged, it is sufficient to recharge the torch for a period of approximately eight hours overnight.

Lipstick Tissues. — Evan Williams Co., Ltd., Aintree Road, Perivale, Middlesex, are marketing a new speciality, Tulip tissues, for absorbing surplus lipstick after application to the lips. Tulip tissues are issued in a display container exposing six cartons to the view of the customer.

Air-circulating Shoe Sock. — Introduced in Norway, where it has had a remarkable sale, and now manufactured in Holland, the Brilliant "air-pumping" inner sole for shoes embodies the idea of the string vest (a layer of air to give warmth in winter and coolness in summer). The sole, which is marketed in Britain by Aquarius Trading Co., Ltd., 2 Beaconsfield Terrace Road, London, W.14, is claimed, in fact, to go one better than the string vest by promoting actual movement of the air under the foot. Made of polythene, it has a smooth upper surface perforated to bring air to the foot. The under surface is provided with different thicknesses of rib so that movement of the foot in walking may promote circulation of the air below. The sole is patented. It may be washed in warm water, does not curl or slip, and is durable. In countries where it has been already marketed pharmacies are understood to be the principal outlets of distribution. The Brilliant is available in sizes to fit all sizes of men's, women's and children's shoes.

NATIONAL PHARMACY EXHIBITION

Pointer for future in opening speaker's remarks?

THE need for a "great pharmaceutical convention" was suggested by MR. A. ALDINGTON (chairman, National Pharmaceutical Union Executive) when he opened the National Pharmacy exhibition in London on September 10.

Mr. Aldington said that there was much in the exhibition of technical interest to pharmacists. There was also a broad cross-section of goods used and sold in general retail practice. It was possibly noteworthy that a number of products of considerable interest to the retail pharmacist were not shown in the exhibition and he understood that there was an increasing demand from pharmacists for tickets to the London Medical Exhibition. There might be a lesson in that. Would it be possible, in the future, by the co-operation of all concerned, to stage a great pharmaceutical convention combining a professional conference, a business convention, and an exhibition of all products within that great industry? A convention would do a great deal of good. Pharmacists had a great service to offer and that service and its value to the public should be made as widely known as possible.

Pharmaceutical Preparations

Exhibitors included the following:—
The AMES CO. (LONDON), LTD., gave a graphic comparison of their new Clinistix reagent sticks for the detection of glucose in urine and Clinitest tablets for the detection of sugar in urine. The announcement of the general availability of Clinistix was made at the exhibition.

Rodine mouse warfarin was featured by THOMAS HARLEY, LTD., Perth.

MODKEM, LTD., Leicester, showed their new N.H.S. balm containing nicotinates, histamine and salicylic

esters. Packs are 1-oz. tube and 1-lb. jar.

Vigortone blackcurrant juice was exhibited by OR-LEM, LTD., Southampton.

Among products shown by ORTHO PHARMACEUTICAL, LTD., High Wycombe, Bucks, were Rarical (ferrous calcium citrate with tricalcium citrate), Genteral for the treatment of vulvo-vaginal moniliasis, and Tritheon for the treatment of trichomoniasis in the male and female.

Riddojoy fruit-flavoured travel sickness tablets and Gomaxide liquid germicide were featured by RIDDELL PRODUCTS, LTD., London, E.2.

Rozalex barrier creams and Rozalex lanolin skin cream were featured by ROZALEX, LTD., Manchester.

STANDARD LABORATORIES, LTD., Sunbury-on-Thames, Middlesex, exhibited their H 11 cancer treatment.

Cosmetics, Perfumery, etc.

Halo and Tango hair nets were shown by the BYARD MANUFACTURING CO., LTD., Nottingham.

A full range of special alloy combs with rounded teeth was displayed by ERIC C. CLEAVER, LTD., Nottingham. The combs are unaffected by waving solutions and are virtually unbreakable.

A range of hand-drawn personal toilet brushes was shown by COATES BRUSHES, LTD., Chard, Somerset. A feature of the stand was a hand-carved ivory hair-brush first exhibited in Paris over 100 years ago and now valued at over £200.

Bonne Sante lotion for dandruff, lemon cream shampoo and First Choice hair cream were shown by FRENCH & SCOTT, LTD., London, W.1.

A wide range of perfume novelties

were shown by NIKKI NOVELTIES, LTD., London, W.12.

A range of toilet articles including a novelty duck clothes brush and shaving



Featured on THE CHEMIST AND DRUGGIST stand were the paper's tablet identification guide and a wide selection of reference books; also shown were text-books published by the Pitman Medical Publishing Co., Ltd.

mirror with socket for electric razor in base was shown by VERNON POWELL, LTD., Croydon, Surrey.

ROSEDALE PRODUCTS, LTD., London, E.8 showed Rosedale Lanospray hair-setting lotion in polythene spray bottle in display outer of one doz.

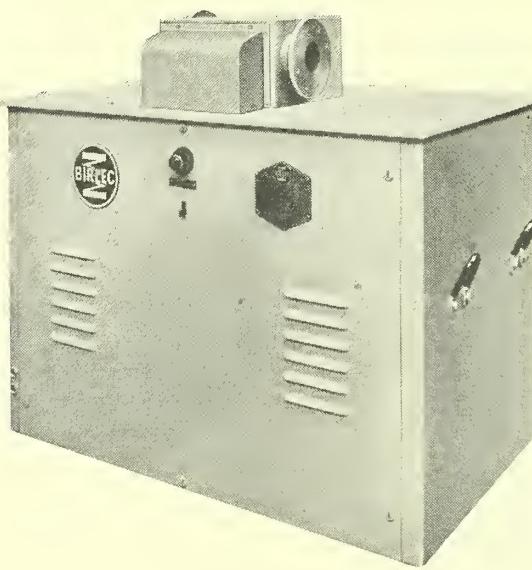
Shown by A. SIMPSON, Chard, Somerset, was a showcase furnished with a selection of shaving brushes.

Coloured cotton-wool balls in polythene bag were a feature of the stand of GEORGE SPENCER & SON, LTD., London, S.W.7

Surgical Sundries

On the stand of COURTAULDS, LTD., London, E.C.1, ROBINSON & SONS, LTD., Chesterfield, were packing bags of rayon gauze swabs, using a machine that arrived at Liverpool from the United States only on September 1 and was brought direct to the exhibition. The machine was made by Lankhuff-Pratt Manufacturing Corporation, Milwaukee, Wisconsin. It was manufacturing, at the rate of about sixty a minute, swabs which it automatically cut, folded and ejected in lots of 100 from a roll of rayon gauze. Also shown on the stand was Ultraplast alginate dressing strip. The dressing, which is made by Wallace Cameron Co., Ltd., Glasgow, C.2, consists of a normal dressing pad covered by knitted alginate. The alginate acts as a haemostat and dissolves to form a protective film. Also shown was viscose rayon into which is woven a radio opaque thread to enable detection of any swab left in the body after an operation.

A range of ultra-violet, radiant heat and infra-red lamps for sale through



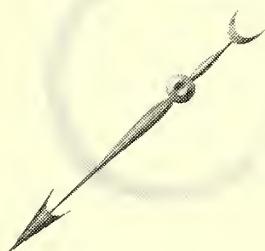
Right, Birlee laboratory Lectrodryer, low-pressure design. Above, Model BE 40 Birlee direct dehumidifier (Birlee, Ltd., Birmingham, 24).





when weather attacks with all it has . . .

. . . as it does in these weeks of quick weather changes, it leaves a trail of minor ailments. It's the start of the Adexolin season, when the protection of vitamins A and D is most needed. Where added calcium is also required, Adexocal (A and D plus calcium) provides the reinforcement.



ADEXOLIN

Trade Mark

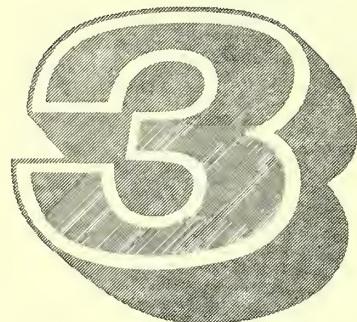
Two capsules for the adult: 12 drops of liquid for the infant, daily

Capsules: 6,000 units vitamin A; 1,000 units vitamin D. Liquid: 12,000 units vitamin A; 2,000 units vitamin D per cc.

CAPSULES	FACE PRICE	TRADE PRICE	LIQUID	FACE PRICE	TRADE PRICE
25	2/-	18/- per doz.	½ oz.	2/3	20/3 per doz.
100	6/-	54/- per doz.	2 oz.	5/3	47/3 per doz.
1,000	36/-	27/- each	16 oz.	30/-	22/6 each
No. 1 Parcel	2 doz. x 25's	£1 12s. od.	No. 4 Parcel	2 doz. x ½ oz. bottles	£1 16s. od.
No. 2 Parcel	1 doz. x 100's	£2 8s. od.	No. 5 Parcel	1 doz. x 2 oz. bottles	£2 2s. od.

Introducing '**migril'** for

TRADE MARK



Dispels headache
Disperses visual disturbances
Defeats nausea and vomiting

A new product—'Migril'—provides, for the first time, a successful 3-way attack on migraine.

'Migril' contains ergotamine tartrate (2 mgm.), caffeine (100 mgm.) and cyclizine hydrochloride (50 mgm.) in each tablet. The inclusion of cyclizine hydrochloride not only eliminates the nausea and vomiting often associated with migraine but also enables larger and more effective doses of ergotamine to be administered.

'migril'
BRAND

Ergotamine Compound (Compressed)

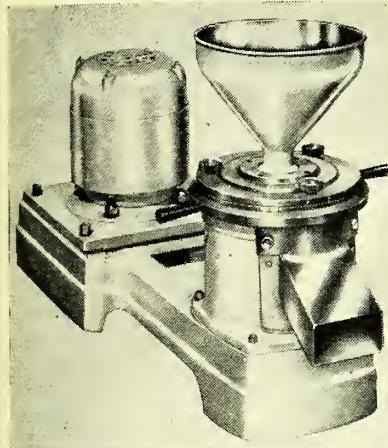
PACKS OF 10 AND 100



BURROUGHS WELLCOME & CO. (THE WELLCOME FOUNDATION LTD.) LONDON

pharmacies on doctors' prescriptions was shown by ELECTRO-MEDICAL HIRE, LTD., London, W.1.

LASTONET PRODUCTS, LTD., Carn Brea, Redruth, Cornwall, showed their range of surgical sundries.



3-in. multi-purpose by Premier Colloid Mills, Ltd.

Chance interchangeable hypodermic syringes were featured by SURGICAL EQUIPMENT SUPPLIES, LTD., London, W.3.

Their range of vulcanite surgical accessories was shown by W. MARTIN & CO. (LONDON), LTD., London, E.C.1.

Nylon surgical hosiery was shown by YALCO, LTD., Nottingham.

Instruments, Apparatus, Equipment

A prototype multiple hypodermic-needle washer capable of cleaning 1,000 needles an hour; the Thermophil electronic thermometer for industrial use (ranges 0° to + 210° C. and - 10° to + 110° C.); and Thermocolor and Thermochrom temperature-indicating colours were exhibited by ADELPHI MANUFACTURING CO., LTD., London, N.1.

Equipment for the air conditioning and dehumidification of pharmaceutical works was demonstrated by BIRLEC, LTD., Birmingham, 24. The range of equipment covers the conditioning of small rooms with one or two occupants (model BE40) up to large rooms with several hundred occupants, and extensive processing machinery (model CHX). Also shown were Birlec laboratory Lectrodryers for process-gas drying.

An automatic titrator that will soon be available for both volumetric and coulometric titrimetry was shown by ELECTRONIC INSTRUMENTS, LTD., Richmond, Surrey.

Their range of electrothermal heating equipment and Solis hair-dryers was exhibited by ELECTROTHERMAL ENGINEERING, LTD., London, E.7.

A series of Elgastat portable deionisers was shown by ELGAR PRODUCTS, LTD., LONDON, S.W.19.

Tinsley polarographs were exhibited by EVERSHED & VIGNOLES, LTD., London, W.4.

The Premier 3-in. multi-purpose colloid mill was shown by PREMIER COLLOID MILLS, LTD., Walton-on-Thames. The mill is equipped with a

two-speed motor and can be supplied with carborundum stones for dispersing and grinding or stainless steel working surfaces for emulsification. The machine can be used for the making of ointments, emulsions, etc. For a small unit it has a high output. Also shown was the Premier laboratory mixer model 1300. The mixer has a variable speed up to 4,000 revolutions per minute, and is equipped with a telescopic unit that allows the mixer to be moved in horizontal or vertical directions.

A new method of making suppositories was demonstrated by SALE PACK MOULDINGS, LTD. The suppository mix is poured into plastic shells mounted on rubber mats. When cool the shells are capped and assembled on stems and cartoned to form a sales pack.

The Solarcheck No. 631 transportable electronic check weigher which weighs instantaneously, rigid or packaged goods in the production line at the rate of sixty items per minute; and the Solarcheck model N.C. 630 which is designed for incorporation into existing production lines and capable of weighing at the rate of 120 items per minute were exhibited by the SOLARTRON ELECTRONIC GROUP, LTD., Thames Ditton, Surrey.

Shown by WICKSTEADS, Royston, Herts, were an invalid hoist for lifting patients from beds and the Rak-a-tic truck which consists of a number of hinged trays, the balance of which is adjustable so that the attendant takes none of the weight.

Packaging

Cardboard dispenser-type showstands were featured by ALFRED KENT & SON, LTD., London, S.W.4.

Plastic containers for cosmetics, etc., and plastic advertising novelties were shown by PRESTWARE, LTD., London, S.W.20.

The uses of transparent Diophane cellulose film and Diolam—a laminate of two plies of Diophane—were shown by TRANSPARENT PAPER, LTD., London, W.C.2. Diolam with the print sandwiched between the two plies allows the label to show the natural gloss of the film while permitting the direct wrapping of pharmaceuticals without fear of the print coming into contact with the product.

Shopfitting

Beanstalk shelving for storage or display was shown by BEANSTALK SHELVING, LTD., Chichester, Sussex.

G. H. GLEDHILL & SONS, LTD., Halifax, showed their redesigned model D cash register, which affords instant visibility of the previous ten registrations; and the new Ideal itemising register which issues an itemised receipt for each customer with a fully itemised private roll.

A film-dispensing rack, films being fed in at the top and sold from the foot thus avoiding out-dated stock, was shown by POTTERS (LONDON), LTD. The rack can be made to any size.

Office Equipment

ADREMA, LTD., London, W.3, demonstrated their system of invoicing using

embossed metal plates for the preparation of the invoices.

Office equipment, business systems and chemists' stationery were shown by STRAKER BROS., LTD., London, E.C.2.

Special Exhibits

The CHRISTIE HOSPITAL AND HOLT RADIUM INSTITUTE, Manchester, showed a number of exhibits by Mr. I. R. Heath, M.P.S., showing the handling of radioisotopes.

CIBA LABORATORIES, LTD., Horsham, Sussex, showed their range of products used in the treatment of hypertension: Serpasil, Serpatonil, Ecolid and Apre-soline.

GLAXO LABORATORIES, LTD., Greenford, Middlesex had an exhibit illustrating the production of Polivirin poliomyelitis vaccine.

MANCHESTER ROYAL INFIRMARY showed a system by Mr. John B. Lloyd, M.P.S., for the filing of technical literature.

The exhibition closed on September 13.

WORLD TRADE

India's Acetic Acid Imports. — The Government of India has increased the quota for the import of acetic acid both from the dollar and soft currency areas for the current half-year from 25 per cent. to 37½ per cent. of the individual importers' best year imports in the period from April 1, 1945, to March 31, 1952.

Carbide Industry for New Zealand? — New Zealand could profitably establish an expanding calcium carbide industry to supply the home market and export to Australia, according to Dr. T. Hagyard, senior lecturer in chemical engineering at Canterbury University College. He said that research had led him to believe that the South Island had all the requirements for the setting up of such an industry. He said at a conference in Dunedin recently that an annual production of 10,000 tons would be a desirable target. Australia was manufacturing only two-thirds of her annual carbide requirements of 30,000 tons while New Zealand imported 1,700 tons a year.

South African Import Controls. — The South African Minister of Economic Affairs, Dr. Albertos van Rhijn, said recently that the country's list of restricted imports would be scrutinised with a view to further relaxing import controls. Dr. van Rhijn, opening an industrial exhibition in Pretoria, said there was no doubt that industrial development in South Africa during the past few years had been considerably stimulated by the control on imports. Industrialists had been repeatedly warned, however, not to start or expand undertakings, which depended on the incidental or temporary protection, which import control offered. They had also been warned that the introduction and continuation of import control was a currency matter, and that in terms of South Africa's international obligations the control would have to be abolished as soon as currency regulations permitted.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, SEPTEMBER 12: Some quarters reported a little more activity in CRUDE DRUGS during the week, though the improvement did not appear to be general throughout the market. The failure of the talks over the Suez Canal issue have had no appreciable effect on demand for commodities from that region. Several have been in short supply for some time, MYRRH being a notable example.

The market's requirements for ASAFOETIDA are now covered; supplies have been short for some time. The most spectacular price rise of the week was provided by CHAMOMILE FLOWERS. Stocks in Belgium are evidently sufficient only to cover domestic requirements. However, a small quantity has been sold for export at 17s. 6d. per lb., f.o.b. Antwerp, which makes the spot value around 20s. against 5s. 3d. recently. CANADA BALSAW was virtually unobtainable on the spot. Only small lots of East African PAPAIN remain in the hands of merchants, and the position at origin is obscure. Chinese MENTHOL, at 50s. per lb., duty paid, was down by one shilling. In AROMATIC SEEDS, higher prices were asked for CORIANDER at origin, meanwhile the spot market was bare of Moroccan. Weak sellers of SENEGA withdrew, and spot parcels came into line with c.i.f. values. TURMERIC was 5s. per cwt. dearer for shipment. SAFFRON is now worth 300s. per lb. for the Mancha superior.

There were no price changes in PHARMACEUTICAL or FINE CHEMICALS during the week.

ESSENTIAL OILS were inclined to be easier although there were exceptions. ROSEMARY has become short and the spot value is about one shilling per lb. higher following reports from origin that the crop is short. Ceylon CITRONELLA was threepence per lb. dearer for shipment while LEMONGRASS and CASSIA were each sixpence per lb. down. Also lower per lb. were PALMAROSA (by 2s. 6d.), PENNYROYAL (by 3s.), and ANISE (by threepence).

A report from Norway states that the export of non-freezing medicinal COD-LIVER OIL up to September 1 amounted to a little more than 30,000 barrels, or about 10 per cent. above the figure at the corresponding date in 1955. This year's production has also exceeded 1955 output by about 10 per cent.

Pharmaceutical Chemicals

ACETIC ANHYDRIDE.—10-ton lots are now quoted at £130 per ton, delivered U.K. in returnable drums; 1-ton lots, £132.

CARMINE.—Price is from 112s. to 140s. per lb. as to quantity.

CHALK.—Prepared powder, B.P., is £22 per ton for minimum 1-ton lots ex makers' works.

CHILOFON.—B.P. 1948 is 67s. per kilo; 50-kilo lots, 62s. 6d. per kilo. The sodium derivative (B.P. 1953) is 99s. 4d. and 92s. 9d. for the same quantities.

CREAM OF TARTAR.—Rates for the home trade are now as follows:—1-ton lots, 231s. per cwt.; 10-cwt., 232s.; 5-9-cwt., 233s.; 2-4-cwt., 234s.; 1-cwt., 235s.

HYOSCINE HYDROBROMIDE.—Quotations are from 97s. 6d. to 115s. per oz. as to quantity and holder.

ICHTHAMMOL.—B.P. is from 2s. to 2s. 6d. per lb. in 1-cwt. lots as to origin and container.

ISONIAZID.—In 5-kilo lots the price is about 140s. per kilo.

LACTOSE.—English, in 1-ton lots packed in 1-cwt. paper-lined sacks, is £137 per ton, delivered in the United Kingdom.

LEAD ACETATE.—B.P. crystals are 200s. per cwt., and technical, 180s.

LITHIUM SALTS.—Current minimum rates (5-cwt.) are as follows:—BENZOATE, 11s. per lb.; CARBONATE, B.P.C., 11s. 3d.; CHLORIDE (commercial), 10s. 9d. to 11s.; HYDROXIDE, 9s. 9d.; CITRATE, B.P.C., 9s.; SULPHATE, 8s. 6d.; SALICYLATE, 9s. 9d.; (10-cwt.), delivered.

METHOIN.—B.P. is about 120s. per lb.

METHYL SALICYLATE.—In 5-cwt. lots price is 3s. 1½d. per lb.; 1-cwt., 3s. 2d.; 56-lb., 3s. 2½d.

OLEIC ACID.—Price for B.P. is about 153s. per cwt.

PARAFFINS.—Prices to wholesale distributors are:—Liquid: HEAVY, B.P., £103 2s. 6d. per ton; LIGHT, B.P., £83; Technical White oils, £72 15s. for the LIGHT and £86 5s. for the MEDIUM, all in 40-50 gall. returnable loaned drums, delivered U.K. Soft: WHITE, medium consistency is now £104 7s. 6d. per ton, WHITE, soft consistency, £102 2s. 6d., and YELLOW, £82 2s. 6d. all B.P., in non-returnable drums delivered. Hard: Melting point 135/140° F., is £82 12s. 6d. and 145/150° F., £88 12s. 6d. per ton.

PHENAZONE.—Minimum price for quantity is 13s. 10½d. per lb. with usual differentials for smaller lots. 1-cwt. is now 14s. 1½d. per lb.

PHENOL.—Basic price for ice crystals in drums is 1s. 4½d. per lb. (under 1-ton lots, 1s. 7½d.). Detached crystals, 2d. per lb. above and LIQUID, B.P., ¾d. per lb. below the foregoing basic prices.

POTASSIUM CHLORIDE.—In 1-cwt. lots B.P., is 2s. per lb.

QUINIDINE.—Prices (per oz.) for minimum 100-oz. lots in the home market are: ALKALOID, 8s. 9d.; SULPHATE, 6s. 7d. Extra charges for small lots.

SODIUM SULPHITE.—1-ton lots on the spot of ANHYDROUS (48-50 per cent.) are £66 10s. per ton in 1-cwt. drums or £62 5s. in 1-cwt. bags; CRYSTALS, B.P.C., are £31 15s. per ton in 2-cwt. paper-lined bags. Commercial crystals are from £25 5s. to £27 as to packing.

SODIUM SULPHATE.—Makers' prices for B.P. range from £11 10s. to £18 17s. 6d. per ton as to crystal and quantity, ex works.

SODIUM THIOSULPHATE.—Makers' price for 1-ton lots in paper-lined bags is £33 15s. per ton.

TARTARIC ACID.—Rates for the home trade are as follows:—10-cwt. lots, 270s. per cwt.; 5-9-cwt., 272s.; 2-4-cwt., 274s.; 1-cwt., 275s.

TEREBENE.—For 1-carboy lots, 4s. 2d. per lb. is asked. In winchesters, prices are from 4s. 3½d. to 5s. 2d. per lb.

TEREBINTH.—B.P. is 2s. 3d. per lb.

ZINC CARBONATE.—In 1-cwt. lots the price is 1s. 9½d. per lb.

ZINC CHLORIDE.—B.P.C., cake from 4s. 6d. to 4s. 10d. per lb.; sticks from 5s. 10d. to 6s. 2d. per lb. TECHNICAL, 11s. 6d. per cwt.

ZINC OXIDE.—Rates for B.P. quality are: 2-ton lots, £132 per ton; 1-ton, £133; 5-cwt., £136; and under 5-cwt., £139, delivered.

ZINC PEROXIDE.—Price (per lb.) for 1-cwt. lots of B.P. is 5s. 3d.

ZINC SULPHATE.—B.P. in 1-cwt. lots is quoted at 1s. 10d. per lb.

Alcohol

PRICES of plain BRITISH SPIRIT per proof gall. are as follows:—

Ethyl Alcohol: 95 per cent. Gay Lussac, 66 o.p.); where the number of proof gall. taken over any one year ended December 31 is 300,000 or over the price is 2s. 11½d.; 200,000 and less than 300,000, 2s. 11¼d.; 100,000 and less than 200,000, 3s. 0½d.; 50,000 and less than 100,000, 3s. 0¼d.; 10,000 and less than 50,000, 3s. 1¼d.; 2,500 and less than 10,000, 3s. 1½d. Prices are exclusive of duty and are for tank wagon lots.

The following grades are subject to a premium on the above prices as follows:—

Absolute Alcohol, 99.5 per cent., 74.5 o.p., 3d. more per proof gall., the special high strength (99.9 per cent., 72.2 o.p.), 5d. more; *Doubly-Rectified Alcohol* (S.V.R.), 95.8 per cent., 68 o.p. is 4d. more and *P.I. Rectified Alcohol*, 96.1 per cent., 68.5 o.p., 8d. more. *R.R. Absolute Alcohol* (re-rectified, 99.7 per cent., 75 o.p.), 12s. 6d. per bulk gall. net.

Methylated Spirits

METHYLATORS' rates per bulk gall. in Great Britain are as follows:—

Industrial Methylated spirit: Strength 61 o.p., 500 gall. and over in one delivery, 5s. 3d.; 100 gall. and under 500 gall., 5s. 6d.; 30 gall. and under 100 gall., 5s. 9½d.; 10 gall. and under 30 gall., 5s. 2½d.; 5 gall. and under 10 gall., 6s. 7½d. Strength 64 o.p., 1d. per gall., 66 o.p. (B.P.), 2d.; 68 o.p., 2½d. more than the above rates with 74 o.p. at 6s. 1d. per gall. in lots of 500 gall. Tank wagon delivery is 1½d. per gall. off list price—minimum, 500 gall. For industrial methylated spirit of standard toilet quality prices are from 5s. 10½d. for 500 gall. to 7s. 2½d. for 5-10 gall. of 61 o.p.

Pyridinised industrial methylated spirit: Strength 61 o.p., 500 gall. and over, in one delivery, 5s. 6d.; 100 gall. and under 500 gall., 5s. 9½d.; 30 gall. and under 100 gall., 6s. 0½d.; 10 gall. and under 30 gall., 6s. 5½d.; 5 gall. and under 10 gall., 6s. 10½d. Strength 64 o.p., 1d. per gall. more than foregoing rates.

Mineralised methylated spirit: Strength 61 o.p. in one delivery, 100 gall. and under 500 gall., 5s. 11d.; 30 gall. and under 100 gall., 6s. 2d.; 10 gall. and under 30 gall., 6s. 7d.; 5 gall. and under 10 gall., 7s. Strength 64 o.p., 1d. per gall. more than foregoing rates.

Methylated resin finish is 3d. per gall. over and *methylated shellac finish* is 1s. per gall. over the prices for pyridinised methylated spirit.

Terms:—Delivered free and carriage paid on returned empties; net cash one month.

Crude Drugs

ACONITE. — Spot supplies of Spanish *napellus* are 3s. 9d. per lb., duty paid.

AGAR-Kobé No. 1 is from 12s. 6d. per lb., duty paid; for shipment, 11s. 3d., c.i.f.

ALOES. — Prime Cape for shipment is valued at 330s. per cwt., c.i.f.; spot, 345s. Curaçao, 345s., spot and 340s., c.i.f.

ANISEE (STAR). — Chinese is 125s. per cwt., c.i.f., for shipment. Spot supplies (if available), 135s.

ANTIMONY. — English 99·6 per cent. is £222 10s.; 99 per cent., £210 per ton.

BALSAMS. — Quotations (per lb.) are:—
CANADA: Unobtainable on the spot. Nominal value 25s. **COPAIBA**, 7s. 9d. to 11s., duty paid. **PERU**, 10s., duty paid. **TOLU** (genuine as imported) is 27s. 6d. nominal; B.P. is 17s. 6d., spot.

CAMPHOR. — B.P. POWDER is from 5s. 3d. per lb., duty paid. TABLETS, $\frac{1}{2}$ -oz. are 5s. 10d., c.i.f., and 6s. 4½d., spot.

CAPSICUMS. — East African on stalk are 150s. per cwt. on the spot.

CASCARILLA. — Spot market bare and shipment not quoted.

CASSIA BARK. — Whole on the spot is about 85s. per cwt., in bond and for forward delivery, 74s. 6d., c.i.f. Broken 75s., in bond, and 63s., c.i.f.

CHAMOMILE. — Dearer. Belgian flowers are very scarce; 17s. 6d. per lb., f.o.b. Antwerp has been paid. Nominal spot value, 20s.

CHERRY BARK. — Thin natural is from 1s. 7½d. per lb., duty paid, and rossed, 2s., on the spot.

CLOVES. — Zanzibar on the spot are now quoted at 3s. 6d. per lb.; prompt shipment, 3s. 2½d., c.i.f. Madagascar, 2s. 11½d., c.i.f.

COCLLANA. — Bark is 2s. 3d. per lb. on the spot.

COCHINEAL. — Black-brilliant is 26s. 6d. per lb. on the spot; grey-black, 17s. 6d.; silver-grey, 16s. 6d.

ERGOT. — Portuguese old-crop is 7s. per lb., c.i.f., for prompt shipment and 8s., spot; East European, 4s., spot, and Hungarian, 8s. 6d., spot.

GINGER. — African on the spot is 245s. per cwt., with September shipment at 230s., c.i.f. Jamaican No. 3, 60s. per cwt., spot; no shipment offers.

GALANGAL. — No. 1 root is quoted at 57s. 6d. per cwt., c.i.f.

GENTIAN. — French is 175s. per cwt., on the spot.

GUM ACACIA. — Kordofan cleaned sorts on the spot are 141s. per cwt.; afloat, 129s., c.i.f., and shipment, 126s., c.i.f.

HENNA. — Indian is 72s. 6d. per cwt. g/n on the spot; Egyptian, 70s.

HYDRASTIS. — Root is 23s. per lb. on the spot.

LIQUORICE. — Natural root: quotations include Anatolian 47s. 6d.; Russian, 55s.; Persian, 35s.; Chinese, 42s. 6d. per cwt. Block juice is 200s. per cwt. for the Anatolian and 185s. for Chinese and British on the spot. Italian stick from 310s. to 476s. per cwt., duty paid.

MACE. — Whole on the spot is 23s. per lb.

MENTHOL. — Chinese is 50s. per lb., duty paid, September shipment, 45s., c.i.f. Brazilian, spot, very short, 45s., duty paid.

NUTMEGS. — West Indian 80's are 6s. 6d. per lb.; unassorted, 6s. 2d.; wormy and broken, 5s. 1½d.

ORANGE PEEL. — West Indian bitter quarters are 11d. to 1s. per lb.; Spanish, 1s. 1d. to 1s. 3d.

PAPAIN. — Firm. Spot East African is 28s. per lb. for grade 1.

PEPPER. — White Sarawak is 2s. 6½d. per lb. on the spot, with shipment about 2s. 5d., c.i.f. Black Sarawak is offering on the spot at 1s. 10½d. per lb.; September shipment, 1s. 8½d., c.i.f. Black Malabar, 275s. per cwt. on the spot; September shipment, 242s. 6d., c.i.f.

PEPPERMINT LEAVES. — Dutch for shipment are offered from 3s. 4d. to 4s. per lb., c.i.f.

PIMENTO. — Spot is 590s. per cwt. with forward at 540s. f.o.b.

PODOPHYLLUM. — *Emodi* is quoted at 145s. per cwt. ex pharf. *Peltatum*, 475s., landed.

SAFFRON. — Mancha superior is nominally 300s. per lb. on the spot.

SARSAPARILLA. — Jamaican native red on the spot is 3s. 3d. per lb., and for shipment, 2s. 10d., c.i.f.

SEEDS. — (Per cwt.). **ANISE.** — Tunisian, 205s., in bond; Spanish, 245s., duty paid.

CARAWAY. — Dutch are dearer at 145s. duty paid. **CELERY.** — Indian is steady at 142s. 6d., spot. **CORIANDER.** — Dearer. No Moroccan available on the spot; Danubian or Rumanian, 65s., duty paid. Bulgarian smalls have all been cleared. **CUMIN.** — Quiet but steady. Spot, Cyprian, 130s.; Moroccan, 135s., duty paid. Iranian, 115s., in bond. **DILL.** — Indian quoted at 65s. on spot. **FENNEL.** — Indian firm at 95s. spot. **FENUGREEK.** — Unchanged. Indian 68s. spot and Moroccan, 67s. 6d., duty paid. **MUSTARD.** — English 65s. to 77s. 6d., according to quality.

SENEGA. — Spot is 19s. per lb. with shippers asking 18s. 6d., c.i.f.

SENNA. — *Tinnevelly* LEAVES (per lb.):— Prime bold, 1s. 4½d.; prime No. 3, 8½d.; f.a.q., No. 3, 7½d. all on the spot; PODS, f.a.q., 7½d., c.i.f. Manufacturing, 7½d., spot. *Alexandrian* manufacturing pods, from 10d.; hand-picked from 4s. 6d. to 7s. 6d., as to quality.

SHELLAC. — F.O.T.N., 317s. 6d. per cwt.; F.O. No. 1, 345s.; fine orange, 360s. to 410s.

TURMERIC. — Madras finger on the spot is 70s. per cwt. with September-October shipment quoted at 82s. 6d., c.i.f.

Essential and Expressed Oils

ANISE. — Chinese, 14s. 3d. per lb., spot, 13s. 3d., c.i.f.

BIRCH TAR. — Rectified is about 14s. per lb. in 1-cwt. lots.

BOIS DE ROSE. — Brazilian is 25s. per lb. on the spot and 23s. 6d., c.i.f.

CADE. — Spanish is 3s. 9d. per lb. for drum lots.

CAJUPUT. — Spot supplies are from 13s. 6d. per lb.

CAMPHOR, WHITE. — Chinese is 2s. 1d. per lb., duty paid.

CANANGA. — Spot is from 54s. to 58s. per lb.

CARAWAY. — English-distilled is offered at 55s. and imported from 27s. 6d. to 28s. 6d. per lb., duty paid.

CASSIA. — Original drums are about 13s. 6d. per lb. on the spot. Shipment 13s. c.i.f.

CASTOR. — Minimum 2-ton lots of pharmaceutical quality £146 per ton, naked ex mill, September delivery.

CEDARWOOD. — 1-cwt. lots of American are 6s. 6d. per lb., and Kenya, 5s. 9d.

CELESTINE. — Oil is 95s. per lb. for bulk lots.

CHAMOMILE. — English oil is offered at from 240s. to 256s. per lb.

CITRONELLA. — Ceylon, afloat 6s. 3d. per lb.; shipment, 5s. 9d., c.i.f. Formosa for shipment is from 5s. 9d. to 6s., as to position.

COD-LIVER. — B.P. is 11s. 6d. per gall. in charged returnable drums. Veterinary, is from 9s. 6d. per gall.

CLOVE. — Madagascar leaf is 8s. 10d. per lb., duty paid and 7s. 9d., c.i.f., for shipment. Rectified 87·88 per cent., 13s.; distilled bud oil, English, 35s.

CORIANDER. — Russian-seed oil is quoted from 7s. 6d. per lb.

CUBEB. — Spot price is from 57s. 6d. per lb.

CUMIN. — Quotations for English-distilled oil are about 102s. per lb. and imported 57s. 6d.

EUCALYPTUS. — Australian 70 to 75 per cent. eucalyptol on the spot is 5s. 8d. per lb.; 80 to 85 per cent., 6s. 4d. Spanish 70 to 75 per cent. at 4s. 11d., duty paid. Chinese type, 4s. 9d., duty paid.

GRAPEFRUIT. — Jamaican is 16s. 6d. per lb.; South African, 12s.

LAVANDIN. — Spot is from 12s. to 15s. per lb. as to quality, for original drums.

LAVENDER. — 38·40 per cent. linalol on the spot is available at 30s. per lb.

LEMONGRASS. — Spot is 11s. 3d. to 11s. 6d. per lb.; September-October shipment, 10s. 3d., c.i.f.

LIME. — Supplies of West Indian distilled are offered from 35s. to 36s. per lb. on the spot.

OLIVE OIL. — B.P. is offered at 32s. 6d. per gall. on the spot.

PALMAROSA. — East Indian, 57s. 6d., spot; 54s., c.i.f.

PATCHOULI. — Penang is 35s., duty paid, and 27s. 6d., c.i.f.

PEPPERMINT. — *Arvensis*: Chinese is 30s. per lb. on the spot and 28s., c.i.f. Brazilian, 23s. spot, and 21s. 6d., c.i.f. Formosan, 14s. 9d., c.i.f. Italian "Mit-cham" type oil is scarce on the spot with new-crop for shipment at 66s., c.i.f. spot. American, 35s. to 39s.

PENNYROYAL. — Spot is quoted at 20s. 6d. per lb., duty paid.

PINE. — *Pumilosis* on the spot is from 16s. per lb.; *syvestris*, 25s. Siberian (*abietis*), 12s. 6d. to 15s.

ROSEMARY. — Spanish oil is very firm on the spot and at origin. Spot value is 6s. 6d. per lb., duty paid.

SAGE. — Spanish is from 8s. per lb. and Dalmatian, 30s. on the spot.

SANDALWOOD. — Mysore is 87s. 6d. per lb. on the spot and East Indian, 83s.

THYME. — Spot is from 9s. to 14s. per lb. according to content.

UNITED STATES REPORT

NEW YORK, SEPTEMBER 11: An increase in orders was reported in the market during the week to September 11 especially for a rather extended line of chemicals that are scheduled to rise in price during the final quarter of the year. **TARTARIC ACID**, **CREAM OF TARTAR** and **ROCHELLE SALT** are being increased by two cents per lb. on October 1 by a leading producer. Increases in the prices of **SODIUM BICARBONATE**, **SODIUM SALICYLATE** and **SAL AMMONIAC** are also scheduled for October 1. In **FINE CHEMICALS** a small lot of **TERPIN HYDRATE** has arrived from Germany. Imports of **CRUDE IODINE** from Japan have recently slackened. A better inquiry was reported for **CRUDE DRUGS** and in view of the unusual firmness in the market, some buyers appear particularly anxious to cover a portion of their anticipated autumn requirements. A development of interest in vegetable **WAXES** was a further decline in **CARNAUBA** in Brazil. The registration price on north country carnauba wax was reported to be 2½ cents per lb. lower.

TRADE MARKS

APPLICATIONS ADVERTISED
BEFORE REGISTRATION

From the "Trade Marks Journal," September 5
For peroxide compounds for use in industry and science (1)

PEROXOL, 747,203, by Koninklijke Industriële Maatschappij Voorheen Noury & Van Der Lande, N.V., Deventer, Holland.

For compost products (1)

BETASOL, 748,678, by W. Darlington & Sons, Ltd., Worthing, Sussex.

For adhesive substances used in industry (1)

KUROFAN, 753,363, by Badische Anilin- & Soda-Fabrik, A.G., Ludwigshafen, Germany. Device of word BeBeRod, 753,950, by B. B. Chemical Co., Ltd., Leicester.

For chelating agents; water-softening preparations; detergents for use in industrial and manufacturing processes; and compounds of minerals for application to the soil (1)

DETAREX, 753,537, by F. W. Berk & Co., Ltd., London, W.1.

For chemical products used in industry and science (1)

PERKADOX, TIDYOL, 754,311-12, ESTABEX, 755,049, by Koninklijke Industriële Maatschappij Voorheen Noury & Van Der Lande, N.V., Deventer, Holland. CEEPYC, 754,794, by Meggeson & Co., Ltd., London, S.E.16.

For chemical substances for use in agriculture and horticulture; and seed dressings (1)

SOLUSAN, 755,075, by Plant Protection, Ltd., Yalding, Kent.

For prepared wax in paste, powder or liquid form for polishing floors and interior woodwork (3)

Device of the wording JOHNSON'S BEAUTIFLOR, B744,919, by S. C. Johnson & Son, Inc., Racine, Wisconsin, U.S.A.

For non-medicated toilet preparations, etc. (3)

DEER MAGIC, 746,389, by the Gillette Co., Boston, U.S.A. Device, 748,309, by Lawrence Edwards & Co., Ltd., London, W.11. ATRIXO, 751,828, NORDA, 751,835, NORDICAN, 751,837, by P. Beiersdorf & Co., A.G., Hamburg, Germany. KARA MALA, 754,768, by Eastern Wholesale Supply Co., Ltd., E.2. BLACK SATIN, 754,003, by M. & J. Steiner, Ltd., London, W.9.

For cleaning and polishing preparations (3)

CONVERTO-LAC, 755,374, by Plastic Polishes, Ltd., London, W.C.2.

For materials prepared for bandaging; surgical and hygienic dressings; plasters, gauze, cotton and tissues, all for medical and surgical purposes; material prepared for dental purposes (5)

Device of the wording JOHNSON & JOHNSON, 703,599, by Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks.

For antiseptic mouthwashes and gargle (5)

Device with letters AMC, B736,924, by Boots Pure Drug Co., Ltd., Nottingham.

For pharmaceutical preparations and substances (5)

GEROPLEX, 747,984, by Anglo-French Pharmaceuticals, Ltd., London, W.C.1. CLINSTIX, 752,955, by Ames Co., Inc., Elkart, Indiana, U.S.A. AMPHEDEX, 754,064, by Victoria Laboratories, Ltd., London, W.C.2. CEEPYC, 754,879, by Meggeson & Co., Ltd., London, S.E.16. ADWIN, 755,044. STIULPHEN, 755,047, by Clarnell, Ltd., Barnsley, Yorks, DALACIN, 755,186, by Upjohn of England, Ltd., London, W.1.

For pharmaceutical preparations and substances for human and veterinary use (5)

JECTOF-FER, 753,515, by Aktiebolaget Astra, Stockholm, Sweden.

For pharmaceutical preparations for use in the treatment of vaginal and allied complaints (5)

TRICOFURON, 749,780, by Norwich Pharmaceutical Co., Norwich, U.S.A.

For insecticides, fungicides and weed-killing preparations (5)

SOLUSAN, 755,076, by Plant Protection, Ltd., Yalding, Kent.

For photographic apparatus and instruments (9)

ALDON, B752,099. EURYGON, 752,101, by Optische Werke G. Rodenstock München, Munich, Germany.

PRINT AND PUBLICITY

Advertising Campaigns

BIOMETICA, Ltd., Park Road, Barnet, Herts: Bu-to, In *Daily Mirror* (September 22), *Daily Sketch* (September 29), *Everywoman*, *Photoplay*, Pinaud, In leading magazines for men, *The Times*, *Daily Telegraph*, *Evening Standard*.

F. W. HAMPSHIRE & CO., Ltd., Sunnydale, Derby: Zubes cough mixture, In *Daily Express*, *Daily Mirror*, *Daily Herald*, *Sunday Dispatch*, *Empire News*, *News of the World*, *Sunday Pictorial*, *The People*, *Reynold's News*, *Woman's Own*, *Reveille*.

PERHEL, Ltd., 27 Rabbit Row, London, W.8: Actinea sun-lamps, In national newspapers and magazines, commencing October.

RIMMEL, Ltd., 146 New Bond Street, London, W.1: Eye beauty preparations, In *Vanity Fair* (October 10), *Woman and Beauty* (October 13), *Modern Woman* (October 15), *Everywoman* (October 20), *Picturgoer* (October 27), *She* (October 29).

SOUTHERN LABORATORIES, Ltd., 88 Upper Richmond Road, London, S.W.15: E. P. tablets, In selected women's journals.

Commercial Television

ALL STATIONS

SUNDAY, September 23: Coty 24 lipstick.

LONDON STATION

TUESDAY, September 25: Elastoplast.

WEDNESDAY, September 26: Gibbs' S.R. toothpaste (between 10 and 10.30 p.m.); Silvikrin shampoo (between 9.35 and 10.55 p.m.).

FRIDAY, September 28: Knight's Castile soap.

SATURDAY, September 29: Silvikrin hair cream.

BIRMINGHAM STATION

SUNDAY, September 23: Knight's Castile soap (between 10 and 10.30 p.m.).

WEDNESDAY, September 26: Astral cream (between 8 and 10.30 p.m.); Gibbs' S.R. toothpaste (between 8 and 10 p.m.).

THURSDAY, September 27: Astral cream (between 8 and 10.30 p.m.).

FRIDAY, September 28: Knight's Castile soap (between 8 and 10 p.m.); Loxene medicated shampoo.

SATURDAY, September 29: Silvikrin shampoo; Cussons' cold cream soap (at 10.45 p.m.).

MANCHESTER STATION

SUNDAY, September 23: Knight's Castile soap (between 7.30 and 8 p.m.); Zoflora.

WEDNESDAY, September 26: Knight's Castile soap.

THURSDAY, September 27: Zoflora.

FRIDAY, September 28: Knight's Castile soap (between 7.55 and 9 p.m.).

SATURDAY, September 29: Cussons' cold cream soap (at 10.45 p.m.); Fennings' cooling powders, mother's book, rheumatic tablets (between 2.45 and 3.30 p.m., and 10.45 and 11 p.m.).

C. & D. WEEKLY LIST OF PRICES

R=Reduced; I.R.P.=Inclusive

Retail Price; *=Tax 30 per cent.

PHARMACEUTICAL SPECIALITIES (MAY & BAKER, LTD.) (to trade from September 10, to public from October 10)

Phenergan tablets 25 mgm.	I.R.P.
25	4 6 R
500	75 0 R
10 mgm.	3 0 R
500	50 0 R
2.c.c. ampoules	10 0 R
cream	3 6 R
1 oz.	35 0 R
16 oz.	

(The prices of Phenergan elixir are unchanged.)

NEW PRODUCTS AND PACKS

AQUARIUS TRADING CO., LTD.

Brilliant "air pumping" sole	
children's sizes	5 0
women's sizes	5 6
men's sizes	5 9

BIOREX (MARKETING), LTD.

Biosome GA snuff*	6	33 0	5 0
ophthalmic ointment*	5 gm.	29 0	4 3

Leaflets

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH, 5 Regent Street, London, S.W.1: "Notes on Applied Science No. 15—Application of Spring Strips to Instrument Design." Pp. 25. Price 2s.

GLASS MANUFACTURERS' FEDERATION, 19 Portland Place, London, W.1: "The Advantages of Glass Containers." Pp. 4.

GLAXO LABORATORIES, LTD., Greenford, Middlesex: "A Decade of Penicillin." Pp. 24.

Price Lists

EDWARD GURR, LTD., 42 Upper Richmond Road, West, London, S.W.14: Michrome stains for microscopy, biological reagents, etc., September. Pp. 60.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Sunday, September 16

SHIEFFIELD PHARMACY CLUB, Clumber Park, at 3.45 p.m. Picnic and games. Enter park from Carburton and look for S.P.C. sign.

Monday, September 17

PLYMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Freedom Fields Hospital, Plymouth, at 7.30 p.m. Illustrated talk by Dr. J. J. F. Merry, M.B., Ch.B., M.P.S. (medical director, Merck-Sharp & Dohme, Ltd.), on cortisone therapy.

HARROW BRANCH, PHARMACEUTICAL SOCIETY, Oak Hall, Baptist Church, College Road, Harrow, at 8 p.m. Dr. F. Dudley Hart (Physician-in-charge, rheumatism unit, Westminster Hospital) on "Cortisone and its Analogues—the Present Position."

Tuesday, September 18

WATFORD AND ST. ALBANS BRANCH, PHARMACEUTICAL SOCIETY, board room, Peace Memorial Hospital, Watford, at 8 p.m. Members' night.

Wednesday, September 19

EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, Swan hotel, Stratford, London, E.15, at 8.15 p.m. Members' night. Report on British Pharmaceutical Conference.

LIVERPOOL CHEMISTS' GOLFING SOCIETY, at Widnes. Fixture.

Friday, September 21

SOCIETY OF LEATHER TRADES' CHEMISTS, chemistry lecture theatre D, The University, Leeds, at 2 p.m. Dr. G. W. Kenner (university lecturer in organic chemistry, and Fellow of Trinity Hall, Cambridge) giving the seventh Procter memorial lecture on "The Present and Future of Peptide Synthesis."

Advance Information

An international conference on scientific photography is being held in Cologne, Germany, September 24-27.

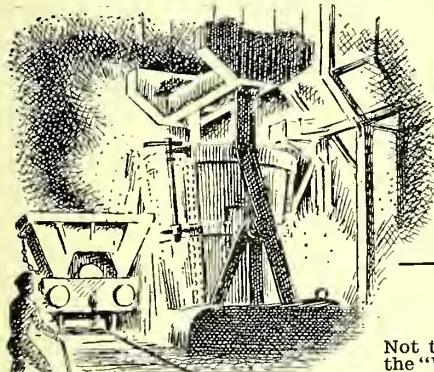
ophthalmic ointment with neomycin*	5 gm.	32 6	5 0
compound suppositories*	12	75 0	11 3
BOOTS PURE DRUG CO., LTD.			
Fydal tablets	10	1	8
Fydale tablets*	10	1	4½
(basic N.H.S. prices).			
BURROUGHS WELLCOME & CO.			
Migril tablets	10		10 6
	100		94 6
CHILTON ELECTRIC PRODUCTS, LTD.			
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Tulip tissues	4 2		6

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Illustrated left. Style C.66. Ladies' Rayon Overalls in colours: Mid and Light Green, Grey, Navy, Beige, Light and Mid Blue, Cream, Pink, Maroon, Fuchsia Pink and White. SW 30/6, W 31/6, WX 32/3, OS 34/11.

Illustrated right. Style C.67. Ladies' Poplin Overalls with wide overlapping skirt. Colours: Pink, Lavender Blue, Light Green, Cerise, Heliotrope and White. SW 32/3, W & WX 35/3, OS 36/3.

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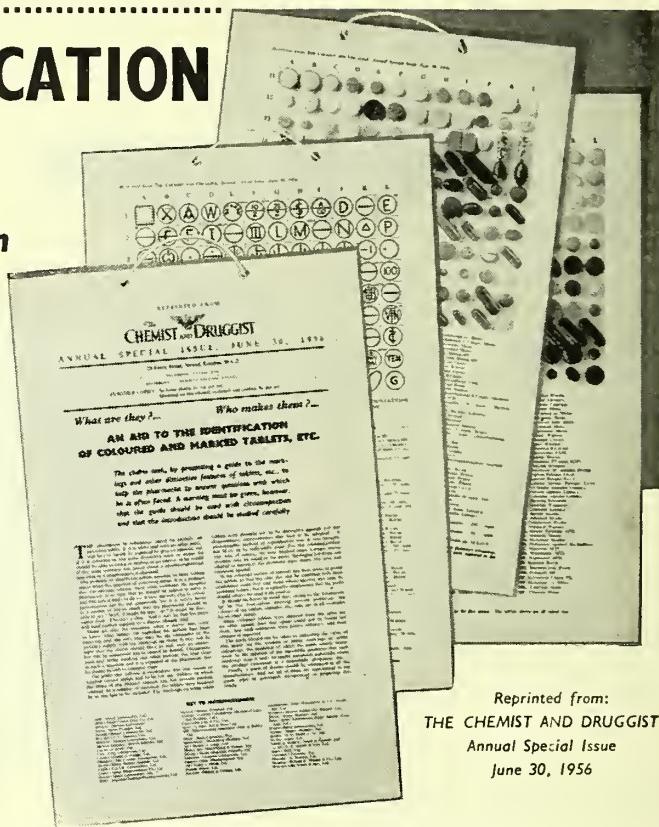
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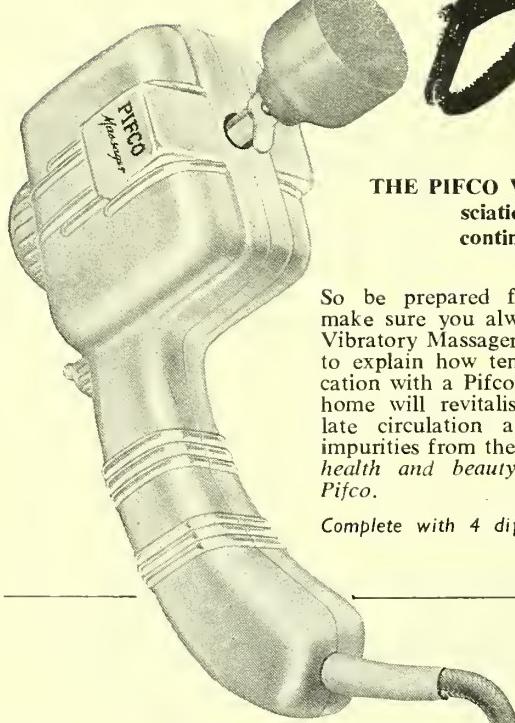
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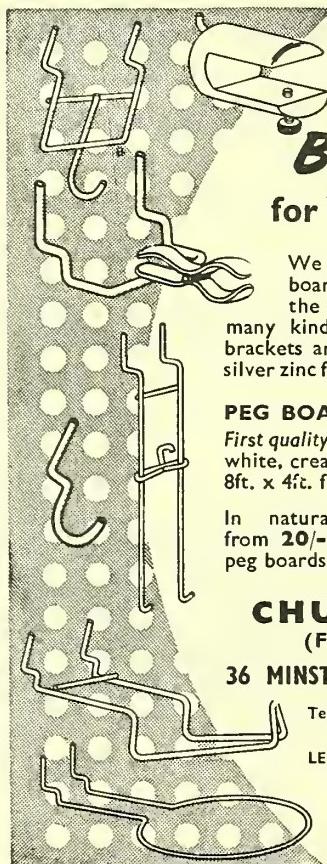
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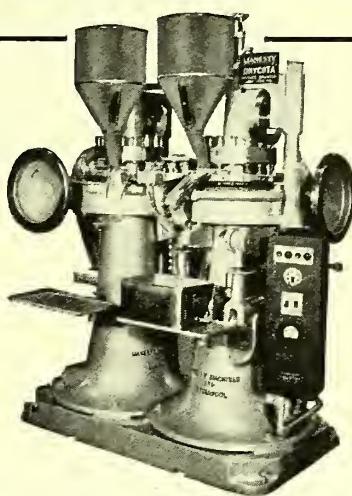
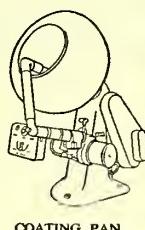
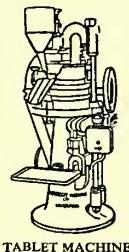
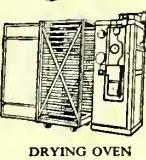
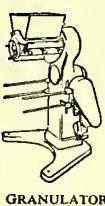
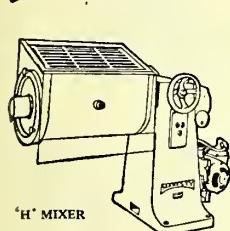
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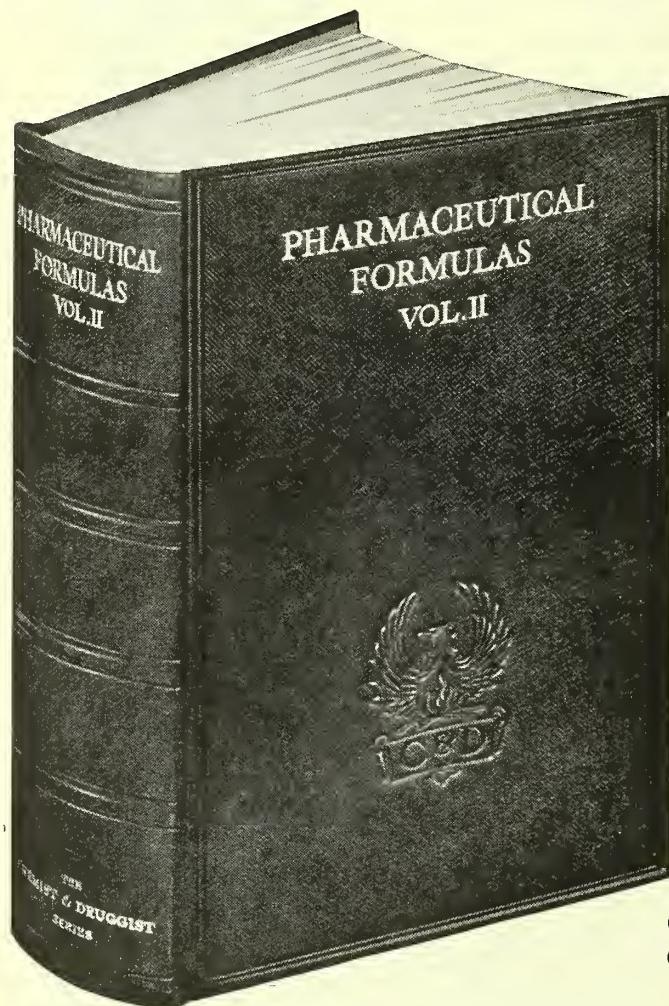
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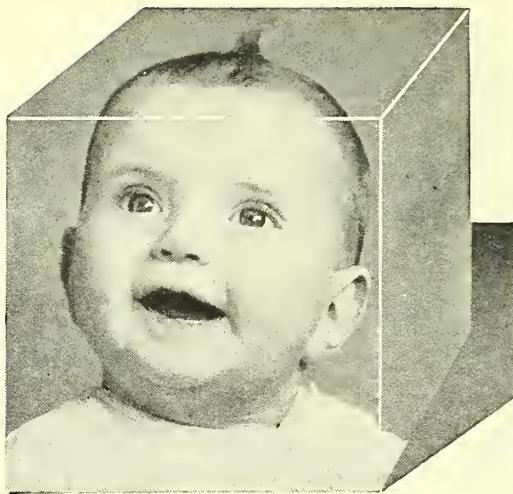
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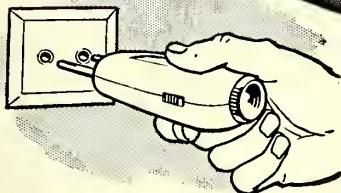
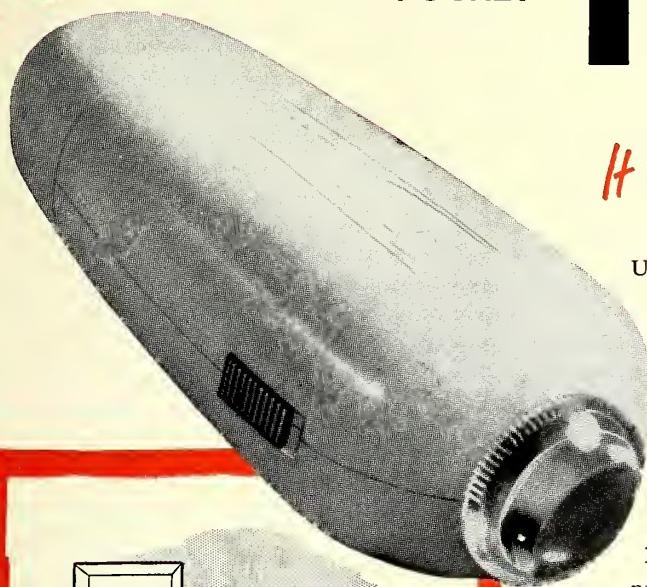
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*containing propylhexedrine—
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Ideal for tablets, powders, creams, liquids and for almost any small article, these economical packs offer perfect protection from manufacturer to consumer.

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Always dispense and recommend Burson 2-Way Stretch Hosiery and ensure your customers' complete satisfaction. The quality—finish—colour and durability of Burson Hose make them the first choice of those who appreciate the best. Burson Stockings are fully fashioned and virtually indiscernible in use.

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COLOR-GLO is bringing sales to chemists all over the country—results since launching have been phenomenal. Don't hesitate to order adequate stocks. COLOR-GLO users do get the results they are promised. That means they will come back again and again—*on the average at least six times a year*. This will represent new business—an addition to your turnover. For most COLOR-GLO users are trying out a new kind of product—one they have never bought before.

Display these
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full colour packs
and link up with the
all-the-year-round
big space advertising
appearing in Woman
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Retail price
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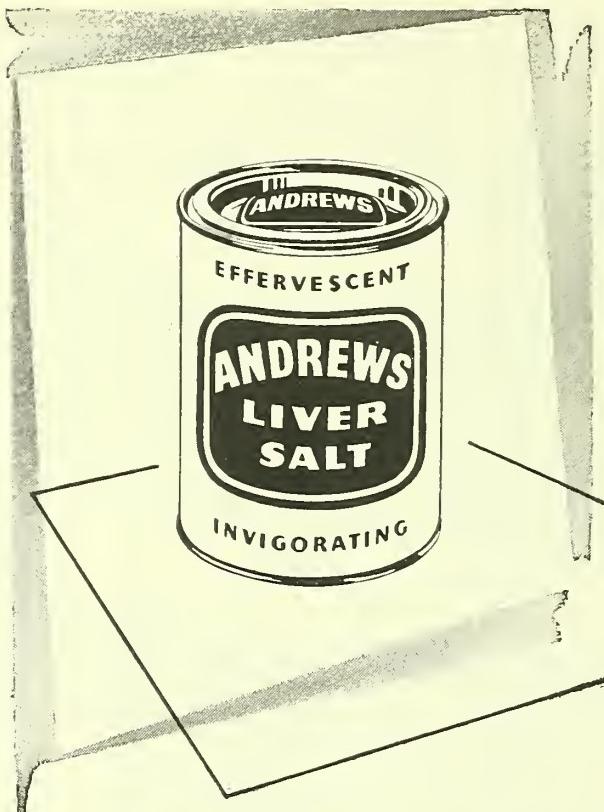
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lasts through 6 to 8 shampoos TRADE MARK

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- The public have confidence in it.
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- It is advertised by a powerful national campaign.

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for INNER
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Simpkins



The ORIGINAL
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TABLETS

Retail price
10½d. per packet

Supplied through Qualified Chemists only
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You can stock with confidence...

... because Cannon Rubber products are made of the highest grade materials, are scientifically and practically designed, they attract custom by their usefulness, fine quality and tasteful colours.

Attractive 'packs' assist counter-sales and in the case of the 'Animal' water-bottles, assemble into a toy Noah's Ark.

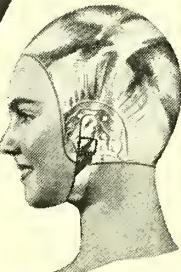
A large Advertising campaign will continue to assist sales of
MODERN TEATS
during 1956

Wide range of hot-water bottles in many colours and different finishes.

The Modern Nurser for 'controlled' feeding keeps food and teat sterile.



The 'Modern' anti-colic teat — Triple perforations for 'Nearest to natural feeding.' Also 'Modern' soothers and ba-by-byt teething rings



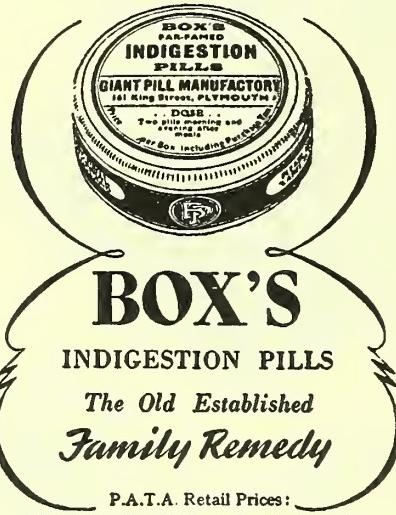
Range of attractive bathing caps in 7 colours, also multi-coloured. Close and watertight fitting.

Cannon Rubber
PRODUCTS
GOODS OF FINE QUALITY

Multi-purpose mat with $\frac{1}{2}$ " rubber brush pile.
Size $20\frac{3}{4}'' \times 14\frac{3}{4}''$ and $24\frac{1}{2}'' \times 16\frac{1}{4}''$. Many colours including pastels.
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There's no off-season for



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and a good new selling line for Pharmacists we introduce our sugar free pastille

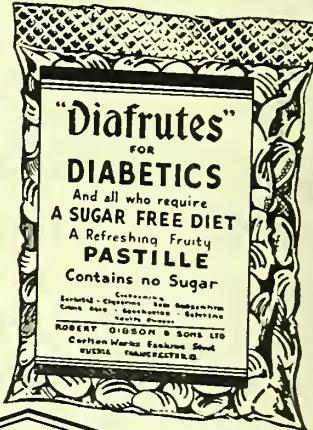
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a refreshing, fruity pastille for diabetics and all who require a sugar free diet.

packed in $\frac{1}{2}$ lbs. to retail at 2/- per packet.

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L. L. & C. Lozenges.



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than
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as before'!**



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Zubes Cough Mixture is going from strength to strength. Last year sales climbed to even greater heights. This year, backed by powerful sustained advertising throughout the country, it's destined to create a still greater impression on the rich market for whole-family cough remedies. No chemist can afford to miss this great opportunity for profit.

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COUGH MIXTURE**
advertising reaches more
than **32,000,000** readers

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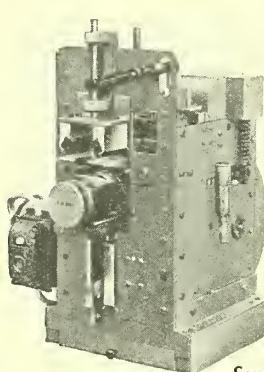
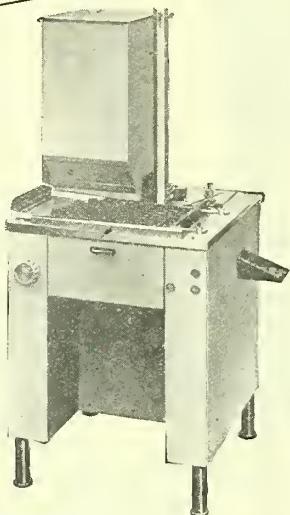
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*The name is
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CAP LINING MACHINE

Automatically inserts wads into small to medium bottle or jar caps. Infinitely variable speed control; quick change-over; advanced design.

MODEL 2E.

**PORTABLE
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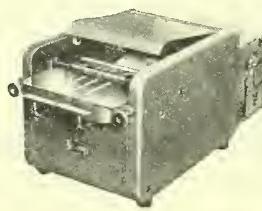
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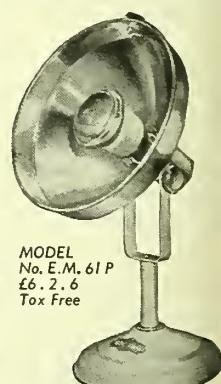
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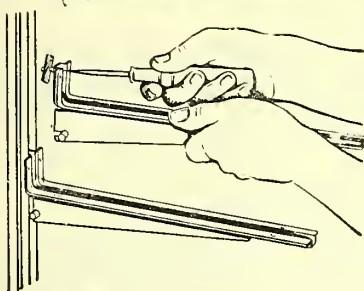
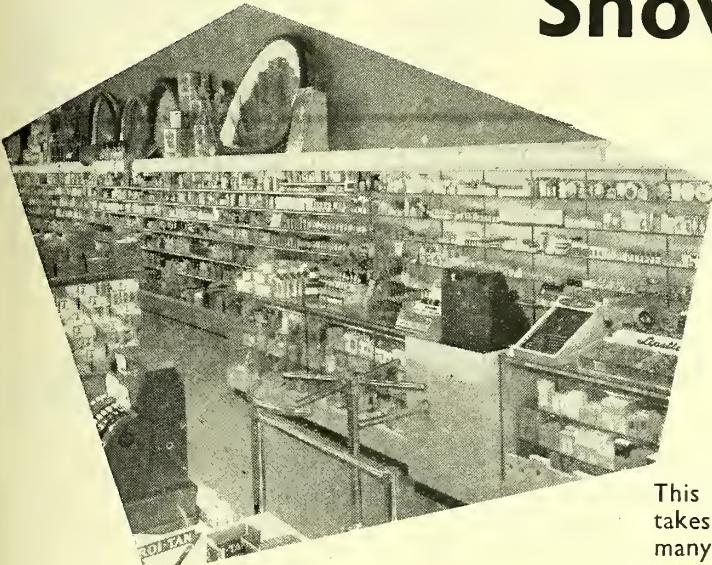


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No. E.M. 61 P
£6 . 2 . 6
Tax Free*

Infra-Red Table Model,
Long or Medium Wave.
Only sold against
Doctor's prescription.

Vizusell

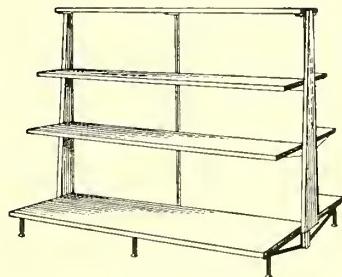
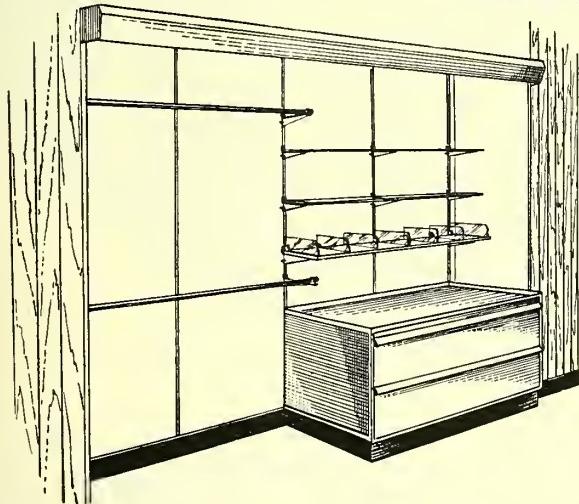
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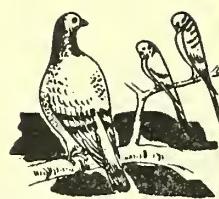
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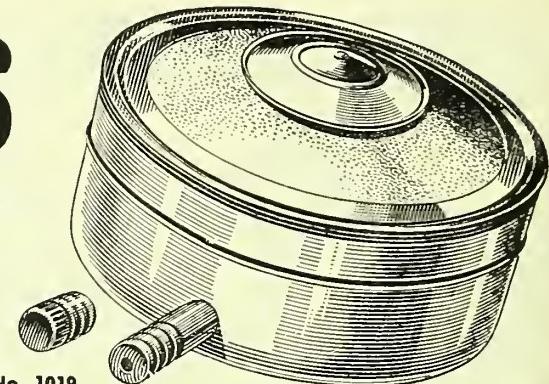
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Sample and prices on application.



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4" wide x 1 $\frac{1}{2}$ " deep. In cartons containing six for window or counter display.

Insect Powder Bellows

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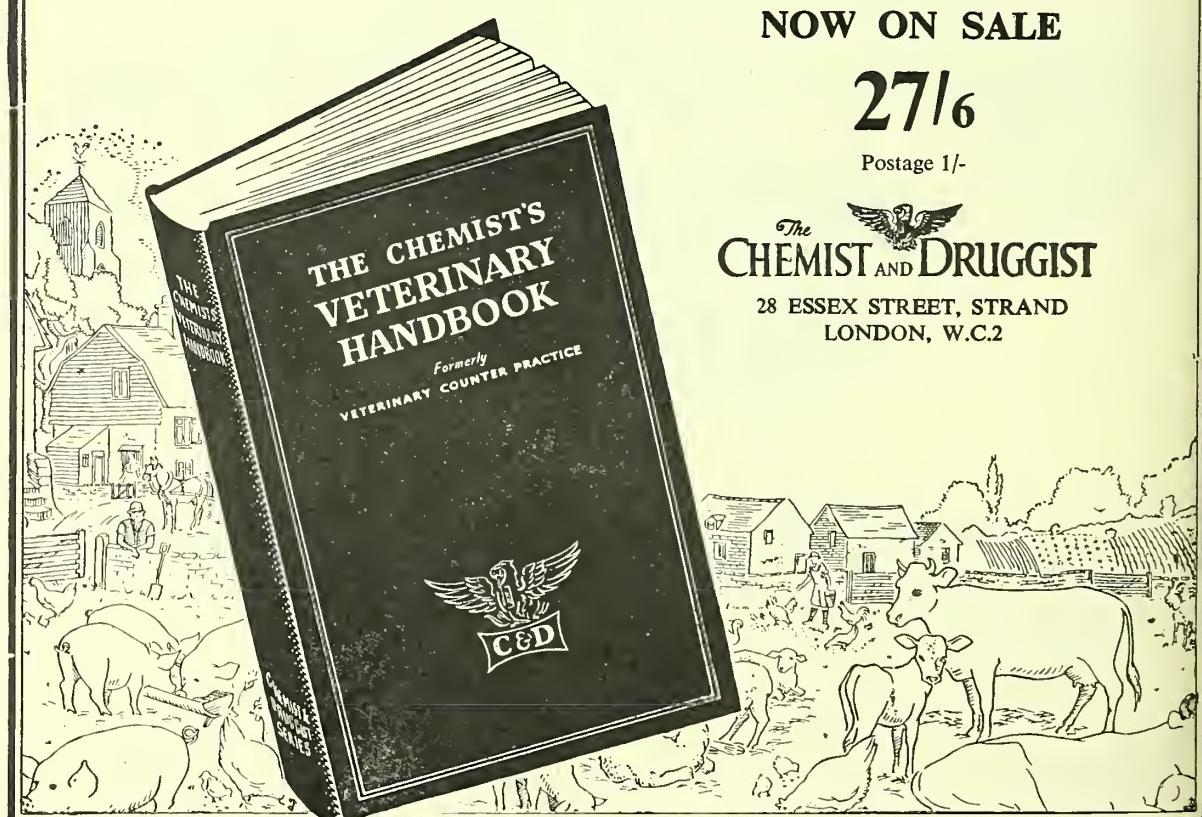
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DRUG STORE (suit chemist, nearest 15 minutes walk). Lock-up, Beckenham. Rent £100. Trade neglected. Only £200 s.a.v. Adams & Co., 14 London Road, Bromley. Rav. 0061/2. C 4008

MUST SELL, good reason. Greenford area. Drug store. Modern parade. Lock-up. Possible flat above later and Post Office. Good scope for pharmacy and associate lines. Price for fixtures, fittings, £275. S.a.v. (approx. £350). Box C 4016.

NORTH DEVON, well-fitted pharmacy, good Health Service connection. Lease 14 years to run. Annual turnover approximately £8,000. Goodwill, lease, fixtures, etc., £2,000, plus stock at valuation. Deferred payment by arrangement. First enquiries to Messrs. L. G. Mason & Co., Chartered Accountants, 3 Fore Street, Bridgwater, Somerset. C 4007

APPOINTMENTS

18/- per half inch (min.) and pro rata.
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BARNET GENERAL HOSPITAL, WELLHOUSE LANE, BARNET, HERTS

Pharmacist

Applications invited for the post of pharmacist. The Pharmacy Department is new and well equipped. Salary £500-£725 per annum plus London Weighting.

Assistant-in-Dispensing also required. Commencing salary up to £405 according to age, rising to £515 per annum. Applications stating age, experience, names two referees, to Hospital Secretary. C 271

CENTRAL MIDDLESEX HOSPITAL, PARK ROYAL, N.W.10

Deputy Chief Pharmacist (Category V) Applications are invited for this position. Whitley Council conditions of service. Salary £675 (£30 7/-)-£885 x £40 (1) to £925 plus £25 for higher qualification plus London Weighting. Applications stating age, qualifications and experience, with names of two referees to Group Secretary, Central Middlesex Group I.M.C., Park Royal, N.W.10, as soon as possible. C 5637

BERMONDSEY & SOUTHWARK HOSPITAL

MANAGEMENT COMMITTEE

Assistant-in-Dispensing

required at St. Olave's Hospital, Lower Road, Rotherhithe, S.E.16. Salary in accordance with Whitley Council agreement, £355 per annum at age 22, rising to £465 per annum, plus London Weighting. Additional payment of £20 per annum for recognised qualification. Applications, together with names of two referees, to the Secretary at the above address. C 5616

KING EDWARD VII HOSPITAL, WINDSOR

Assistant-in-Dispensing

Temporary Assistant-in-Dispensing required for approximately three months. Whitley Council salary. Applications to Secretary. C 5623

KING EDWARD VII HOSPITAL, WINDSOR

(Category III Hospital)

Pharmacist

required at the above hospital. Apply with details of service and names of three referees to Secretary. C 5648

NAPSURY MENTAL HOSPITAL, Nr. ST. ALBANS

Locum Tenens Dispensing Assistant

required (Hall Certificate), commencing October 1, 1956. Salary £8 16s. 6d. per week. New pharmacy in course of construction. Applications endorsed "Locum Dispensing Assistant" to Group Secretary, Napsbury Mental Hospital. C 5610

NAPSURY (MENTAL) HOSPITAL MANAGEMENT COMMITTEE,

Nr. ST. ALBANS, HERTS

Locum Tenens Pharmacist

required commencing October 1, 1956, at £16 16s. per week. New pharmacy in course of construction. Details to the Group Secretary with names of two referees in an envelope to be endorsed "Locum Pharmacist." C 5611

NAPSURY (MENTAL) HOSPITAL MANAGEMENT COMMITTEE,

Nr. ST. ALBANS, HERTS

Senior Pharmacist

Applications are invited for the post of Senior Pharmacist £575 x £30 (5)-£725 x £25 (2)-£775. New pharmacy in course of construction. Applications to the Group Secretary, with names of two referees, endorsed "Senior Pharmacist." C 5612

NORTH WEST DURHAM HOSPITAL MANAGEMENT COMMITTEE

SHOTLEY BRIDGE GENERAL HOSPITAL, co. DURHAM

Pharmacist

Applications are invited from registered pharmacists for the above appointment. Department equipped with facilities for manufacturing and sterile work. Salary £500 by annual increments to £725. Whitley Council conditions.

Applications giving details of age, qualifications and experience together with names of two referees to the Group Secretary, Shotley Bridge General Hospital, Shotley Bridge, Consett, co. Durham, immediately. C 5651

I84 STRAND, W.C.2

Tel: TEMple Bar 9212/3 & 6340

NOTTINGHAM NO. 1 HOSPITAL MANAGEMENT COMMITTEE

Senior Pharmacist

Applications are invited for the appointment of Senior Pharmacist to take charge of, and develop the Sterile Products Unit at the General Hospital, Nottingham.

Detailed information may be obtained from the Chief Pharmacist. Applications stating age, qualifications, and experience, particularly in the preparation of Sterile Products, together with the names of two referees, to be sent to the Group Secretary, General Hospital, Nottingham. C 281

SOUTH-WEST MIDDLESEX HOSPITAL MANAGEMENT COMMITTEE,

WEST MIDDLESEX HOSPITAL

(Category V)

Senior Pharmacist

required to take charge of new Sterile Laboratory. Should be experienced in this type of work. Salary scale £575-£775 plus London Weighting, and Higher Qualification Allowance £25 per annum. Commencing salary determined by previous experience. Whitley conditions.

Applications stating age, qualifications and experience, with copies of testimonials and names and addresses of three referees to Chief Pharmacist, West Middlesex Hospital, Isleworth, Middlesex. C 5662

ST. ALFEGE'S HOSPITAL, GREENWICH, S.E.10

(Category IV)

(a) Deputy Chief Pharmacist

(b) Senior Pharmacist

Applications are invited for the posts of (a) Deputy Chief Pharmacist, salary £655-£890 p.a. (b) Senior Pharmacist, salary £605-£805 p.a., in a well-equipped department at the above hospital, which may be inspected by arrangement with the Chief Pharmacist. Whitley Council conditions. Applications to Acting Secretary, G. & D./H.M.C., at above hospital. C 5437

ST. ALFEGE'S HOSPITAL, GREENWICH, S.E.10

Locum Pharmacist

(long- or short-term) required. Salary 16-17 guineas weekly, according to experience. Apply Chief Pharmacist at hospital (Tel: Gre. 2655), C 5436

ST. MARK'S HOSPITAL, CITY ROAD, LONDON, E.C.1

Post-graduate Teaching Hospital

Pharmacists

Applications invited for the appointment of Pharmacist at this surgical hospital (rectal and colonic). New Whitley Council salary scale £500-£725, plus London Weighting. Additional £25 if holding higher qualification. Service in retail pharmacy, etc., taken into account in deciding commencing salary. Age, qualifications, experience, names two referees to Secretary. C 5655

THE LONDON HOSPITAL, WHITECHAPEL, E.1

Locum Pharmacist

required. Salary 15 or 16 guineas weekly according to experience. Apply to Secretary. C 284

Appointments—Continued

**THE UNITED BIRMINGHAM HOSPITALS,
THE QUEEN ELIZABETH HOSPITAL,
EDGBASTON, BIRMINGHAM, 15**

Pharmacists

Applications are invited from Pharmacists for a post providing a unique introduction to Hospital Pharmacy. Salary in accordance with Whitley Council Scales. Applications to the Chief Pharmacist.

C 5652

**WALTON HOSPITAL,
LIVERPOOL, 9**

Senior Pharmacist

Applications are invited for a post as senior pharmacist and a post as

Pharmacist

in the newly modernised dispensary of this large general hospital. Salaries in accordance with Whitley Council Scales. Apply to Secretary, Walton Hospital, Liverpool, 9.

C 5647

**WORTHING GROUP HOSPITAL MANAGEMENT COMMITTEE,
WORTHING HOSPITAL,
LYNDHURST ROAD,
WORTHING, SUSSEX**

Pharmacist

Applications are invited for the appointment of pharmacist (male or female), vacant November 1956, for duties in new Department recently opened. Salary and conditions of service in accordance with Pharmaceutical Whitley Council Scale. Applications stating age, qualifications and experience, together with the names of two referees, to be forwarded to the Hospital Secretary.

A. V. OAKTON,
Group Secretary.
C 280

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RETAIL (HOME)

BOURNEMOUTH. A male assistant for retail drug and surgical store with photographic department. Able to deal with stock requirements and display. State age, experience and salary required. Commission on sales for energetic salesman. Box C 4003.

COSMETIC ASSISTANT required for good-class pharmacy. Applicants should be used to all main agencies, have a pleasant personality and be able to work with other staff. Please give all details of previous experience, age and salary required to Wilfrid E. Dale, Ltd., 27 Market Place, Andover, Hants. C 4018

DONCASTER CO-OPERATIVE CHEMISTS, LTD. require the services of pharmacist (male or female) as branch manager. Payment on "sales" scale, plus bonus. Salary at smallest branch over £900 per year. Rota payment extra. All shops in prosperous industrial areas where sales increases are possible. 44-hour week. Applications, with usual particulars, to the Superintendent Chemist, Doncaster Co-operative Chemists, Ltd., P.O. Box 20, Doncaster. C 278

NORTH LONDON. Unqualified assistant required chiefly for dispensing for business situated at Mill Hill, N.W.7. Apply with fullest details of experience, also age and suitable time for an interview, to Box C 5658.

SCOTLAND : CHEMIST. An experienced manager required for modern, well-fitted Glasgow pharmacy. Adequate supporting staff. An excellent salary with entry to superannuation scheme after initial period of service. Applications in writing, stating age, experience, and when free for interview to: Mr. G. M. Archibald, Technical Supervisor, S.C.W.S., Ltd., Retail Drug Department, 187 Bogmoor Road, Shieldhall, Glasgow. C 4009

STOCKTAKERS. Orridge & Company offer permanent careers to applicants having good knowledge of retail prices, drugs, etc. Vacancies in London, Liverpool and Birmingham offices. Attractive salaries. Expenses paid. Previous experience preferred but not essential. Apply 184 Strand, W.C.2. C 282

TAMWORTH, STAFFS. Pharmacist (male or female), to manage shop to open on new housing estate. Modern 3-bed house available. Easy hours, usual holidays. Salary and commission. Partnership entertained later if suitable. Experience and salary to Milo Turner, Chemist, Tamworth. Phone: 219. C 3999

VACANCY OCCURS for an experienced male assistant, must be accustomed to busy dispensing and general retail routine. No Sunday rota. Good salary for right man. Tomlinson, Ph.C., 63 Oxford Road, Burnley. C 279

YORK CO-OPERATIVE CHEMISTS' SOCIETY, LTD., require branch manager, lady or gentleman, for new pharmacy in suburb of York. Small, easily worked, but developing business. Good salary and conditions. Self-contained, splendidly equipped modern flat at moderate rental. Apply, giving full details to the Superintendent Chemist, 22 Railway Street, York. C 4011

WHOLESALE

ALLIED LABORATORIES, LTD.
MEDICAL REPRESENTATIVE required to take over well-established territory comprising Sussex, part of Surrey and Berks. Previous experience desirable and first-class pharmaceutical background essential. Applicants should reside in Sussex and be car owners. Remuneration by arrangement. Life Assurance and Pension Scheme available to established staff. Please write full details in strict confidence to Allied Laboratories, Ltd., 140 Park Lane, London, W.1. C 5501

EXPERIENCED foreman tablet maker with knowledge of all branches of production required by expanding company. Five-day week, canteen available. Pension scheme. Full details of experience and salary required to Box C 5627.

ALLIED LABORATORIES, LIMITED

Medical representatives for two areas:

- (i) Hertfordshire.
- (ii) Essex.

Men with sound pharmaceutical background who are resident in either territory and car owners should apply with full details. Previous experience not essential as full training is given. Remuneration commensurate with position, and life assurance and pension scheme operates for established staff.

Allied Laboratories, Ltd.,
140 Park Lane, London, W.1.
C 5634

EXPORT SALES DEVELOPMENT

ROUSSEL LABORATORIES wish to interview applicants for a new post in their organisation concerned with development of overseas markets.

Candidates should have some experience of pharmaceutical sales promotion in this country or overseas, preferably both of outside representation and of marketing and executive work, be interested in export work and be willing to travel overseas when the occasion arises.

In view of the experience required, it is not envisaged that candidates under twenty-eight years of age will be suitable. A tentative upper age-limit is thirty-five. Applications, which should give fullest details in the first instance, and will be treated in strict confidence, should be addressed to the Sales Manager, Roussel Laboratories, Ltd., 847 Harrow Road, London, N.W.10. C 5629

MANUFACTURERS of well-known toilet preparations, changing their sales policy, wish to appoint representatives in East Anglia, Leicestershire, Northampton and Wales to call on chemists and stores, on commission basis and car allowance. Lines are well introduced all over the country and sales are supported by intensive advertising. Gentlemen with car and good connections please state territory covered and lines carried. Box C 4012.

GRANULATOR, experienced, required by tablet manufacturers. Apply Matthews & Wilson, Ltd., 6 and 8 Cole Street, London, S.E.1. C 5660

MEDICAL REPRESENTATIVE: REPUBLIC OF IRELAND. Internationally known pharmaceutical manufacturer seeks top-grade Representative to call on hospitals, specialists and doctors throughout the Republic of Ireland. Pharmaceutical or medical training essential. Selling or detailing experience desirable. The post is based on Dublin. Salary would be generous, according to experience. Expenses. Must be car-owner. Interviews Dublin or London. Please state age, education, experience, and nationality in confidence to Box C 5636.

MERCK-SHARP & DOHME LIMITED

A vacancy exists in S.W. London for a Medical Representative to call on doctors and chemists. Applicants must be Pharmaceutical Chemists or men with a very good pharmaceutical or medical background. Previous experience in Medical Representative work an advantage but not essential as training will be given.

Applications are invited from men between the ages of 24-35 desirous in taking up this interesting work with a progressive Company. Good remuneration to the right man. Company car provided and Pension Scheme in operation.

Apply: Sales Manager, Merck-Schärf & Dohme, Ltd., Hoddesdon, Herts.

C 5646

MEDICAL REPRESENTATIVES required by London manufacturing chemists to call on doctors, dentists, hospitals, and chemists. Experience of medical detailing an advantage but not essential if applicant has a good pharmaceutical background. Applications invited from pharmacists, 25 to 40 years of age, stating experience and salary required. Box C 264.

PROCESS WORKERS required for manufacturing laboratory of leading London drug houses. Five-day week, canteen facilities. Apply giving age, experience and salary expected to Box C 5624.

PRODUCTION CHEMIST, 25-35 years of age, required by rapidly expanding toiletries and cosmetics firm as first assistant to the present works manager. Good salary with guaranteed yearly increase to the right person. Apply in strict confidence to Box C 276.

PHARMACEUTICAL CHEMISTS

Applications are invited from male Pharmaceutical Chemists to fill vacancies in production control work associated with sterile techniques used in the formulation and filling of antibiotics. Graduates in pharmacy, preferably with an engineering background or qualification in pharmaceutical engineering are required. Age not over 35 years.

The positions are vacant at the Liverpool premises of The Distillers Co. (Biochemicals), Ltd., manufacturers of antibiotics. The company operates non-contributory sickness and pension schemes; canteen and social facilities are available and three weeks' annual holiday is given. Salary will depend on qualifications and experience.

Apply: Personnel Manager, The Distillers Company (Biochemicals), Limited, Fleming Road, Speke, Liverpool, 19. C 5644

QUALIFIED CHEMIST, young, required with manufacturing and analytical experience by established firm of manufacturing chemists in the Midlands. Applications, in confidence, stating age, qualifications, experience and salary required to Box C 3995.

PFIZER, LTD.**MEDICAL REPRESENTATIVES**

Owing to continued expansion Pfizer, Ltd., wish to enlarge their Medical Representative Force and invite applications for these positions.

The Company is a British subsidiary of leading American ethical pharmaceutical house.

Preference will be given to applicants with pharmaceutical qualifications or experience with an ethical house. Good starting salary and expenses. Car provided. Non-contributory Pension Scheme. Previous applicants need not re-apply.

Applications, giving full particulars of age, experience, etc., should be made in writing to the Personnel Officer, 137/139 Sandgate Road, Folkestone, Kent.

C 5653

Situations Vacant—Continued

REPRESENTATIVE REQUIRED for South Wales and Gloucestershire by well-known house supplying packed medicinal specialties to pharmacists only. Applications are invited from gentlemen with selling experience and enthusiasm who are resident in the area. Salary, expenses and commission, also a pension scheme is in operation. Company car provided. Write in first instance to Box C 5657.

REQUIRED: Experienced tablet maker for granulating, compressing and coating of tablets. Good working conditions, canteen facilities, five-day week. Apply: The Manager, E. R. Squibb & Sons, Ltd., Speke, Liverpool, 19. C 5631

SALES REPRESENTATIVE for Essex and adjacent counties required by well-known firm manufacturing proprietary lines, packed goods and tablets. Existing contacts and trade experience in the area advantageous. Salary and excellent commission, pension scheme. Car provided and expenses paid. Write Box C 5626.

SPEKE WORKS LABORATORIES

PHARMACIST, preferably with degree or major diploma, and some experience in hospital or industrial laboratory, required as head of pharmaceutical section in laboratories of large firm of antibiotic manufacturers in the Merseyside area. Duties would include supervision of certain aspects of quality control of ethical products; development of new methods of testing and inspection; initiation of or participation in many varied problems encountered in large-scale production. The company operates non-contributory sickness and pension schemes; canteen and social facilities are available; three weeks' annual holiday given. Salary will depend on qualifications and experience. Apply: Personnel Manager, The Distillers Company (Biochemicals), Limited, Fleming Road, Speke, Liverpool, 19. C 5643

MEDICAL REPRESENTATIVE, Genatosan, Limited, a member of the Fison Group, require a Medical Representative to cover general practitioners, hospital medical officers, etc., for a territory based in the neighbourhood of Northampton, and covering the counties of Northamptonshire, Buckinghamshire and Bedfordshire, and part of Warwickshire and Herefordshire. This post is well remunerated with incentives and good prospects for a keen and energetic man possessing the ability and desire to make a success of this specialised work. The successful applicant will have to reside on his territory. Full personal details with a summary of attainments and experience, should be addressed to the Personnel Officer, Genatosan, Limited, 11 Derby Road, Loughborough, Leics. Please quote reference MR.N. C 5632

PARKE, DAVIS & COMPANY, LIMITED

invite applications from **PHARMACISTS** for a Junior Executive position in their Pharmaceutical manufacturing division. The position entails supervision of groups of process workers and offers an opportunity to gain wide experience in modern large-scale production methods. Good promotion prospects, previous manufacturing experience, while an advantage, is not essential. Five-day week, staff restaurant, generous pension plan. Write with full particulars to Personnel Manager, Staines Road, Hounslow, Middlesex. C 5654

PHARMACIST (under 30) required as assistant to buyer of modern adequately staffed drug and dispensing section of department store. Opportunity to gain wide experience and promotion. Store hours, a good holiday, and discount on personal purchases. Apply Personnel Controller, Bentalls of Kingston-on-Thames, Surrey. C 5645

IMPORTANT BELGIAN-DUTCH LABORATORY

(Brussels—Rotterdam)

having a Branch established in the Belgian Congo (Leopoldville) and having two departments entirely distinct ethical specialties and properties would conclude agreement either for marketing foreign pharmaceuticals in name and on account principals or as general agent on his own account and responsibility. Up-to-date processing and packaging equipment for all kinds dosage forms and sizes would be placed at disposal principals as well as promotional and distributing organization or would work under contract on his own account if general agent. Excellent introduction. Write Box C 4004.

**HOME SALES MANAGER
REQUIRED**

Pharmacist preferred but not essential provided applicant has all-round experience in similar position with Manufacturer of ethical products. Age under 40—good prospects for right man. Contributory pension scheme and Group Life Insurance. Application to General Manager, Armour Laboratories, Hampden Park, Eastbourne.

C 5655

REPRESENTATIVE REQUIRED for the Midlands, to call on chemists for an old-established manufacturing house marketing drugs, galenicals, packed pharmaceuticals and medical specialties. Should reside in the Midlands. This is an excellent opportunity for a young man with a pharmaceutical background, wishing to make a career as a representative. Experience is not necessary, but the successful applicant will be enthusiastic and conscientious. Car provided. Remuneration by salary and commission. Expenses paid. Apply stating age, details of career to date, salary required, etc., to Sales Manager, John Richardson & Co., Leicester. C 5619

TABLET MAKER required by manufacturing chemists, Park Royal area. Apply with details of experience to Works Manager, C. L. Bendard, Ltd., Minerva Road, N.W.10. C 5663

TRAVELLER required for north-eastern counties. Must have good knowledge of trade and know chemists covering the area. Substantial salary, car allowance, and commission. Apply Box C 283.

WHOLESALE (OVERSEAS)

FULLY QUALIFIED CHEMIST with wholesale distributing experience required by important company in Pakistan. Apply stating age, qualifications, experience and salary required to Box C 4006.

AGENCIES WANTED

17/6 for 36 words (min.) then 4d. per word.
Box 2/-

NEW ETHICAL COMPANY wishes to contact EIRE company who are willing and able to handle all the company products on a sole agency basis. Only a firm who can undertake both medical detailing and complete distribution considered. Write Box C 3991.

PFIZER LTD.**MEDICAL REPRESENTATIVE**

Applications are invited for the appointment of Pharmaceutical Representative in several areas of Great Britain.

Preference will be given to applicants with a sound pharmaceutical background and good experience of pharmaceutical Marketing techniques.

Good starting salary and expenses. Car provided. Non-contributory Pension Scheme.

Previous applicants need not re-apply.

Applications, giving full particulars of age, experience, etc., should be made in writing to the Personnel Officer, 137/139 Sandgate Road, Folkestone, Kent. C 5661

OVERSEAS

Pharmaceutical chemist (male), age about 25 years, unmarried, required by leading Swiss pharmaceutical house for service with its affiliated company in Karachi (Pakistan).

The post is that of assistant to the manager; and offers excellent opportunities to the right man. The successful candidate will receive thorough training in all branches of the pharmaceutical business, i.e., sales promotion, commercial work, and the supervision of a small finishing unit. Terms will be generous. Young men wishing to make a career in the pharmaceutical business are requested to apply to CIBA Limited, Basle, Switzerland, giving full particulars of their training and experience.

C 5659

SITUATIONS WANTED

3/- for 18 words (min.) then 2d. per word.
Box 1/-

WHOLESALE

EXPERIENCED MEDICAL REPRESENTATIVE seeks change, Own car. At present Berkshire, Oxfordshire and Gloucestershire area, Other area considered. Highest references. Box C 3983.

IF YOU ARE LOOKING for a pharmacist with 15 years' sales experience of pharmaceuticals and allied lines contact Box C 4013.

REPRESENTATIVE seeks change. Excellent connection retail, wholesale, London S.E. England, Galenicals, specialities, etc. Highest references. Current licence. Good remuneration. Box C 4017.

YOUNG MAN, 26, desires change. Ten years present firm, Six years' sales experience, Own car. At present Lancs. Anywhere considered. Box C 4010.

YOUNG SENIOR EXECUTIVE seeks responsible position as general manager or as right-hand man to managing director of group of drug stores. Thorough knowledge of chemists' sundries and allied lines. Buying, selling, administration and staff control. Box C 3996.

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ESTABLISHED SURGICAL DRESSINGS manufacturer in India, keen on extending, in combination with British firm its activities to manufacture of adhesive plasters, p.o.p., bandages or sutures. Contact representative. Box C 4014.

MANUFACTURING CHEMISTS in Dublin have spare capacity for the packing and bottling of toilet goods, cosmetics, confectionery, food and medicinal products (non ethical). Despatch direct to customers if required. Modern post-war factory. All replies in strict confidence. Box C 5656.

OUR FACTORY AT YOUR DISPOSAL. We have modern facilities for the production, under your own Brand, of preparations like bath cubes, bath salts, powder in envelopes, perfumes, talcum powder, etc., as well as technical products, e.g., disinfectant blocks, moth repellants and agricultural tablets. Write Box No. AC21314, Samson Clarks, 57/61 Mortimer St., W.1. C 5628

WANTED

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Box 2/-

ALL KINDS OF BOTTLES, JARS, SCREW CAPS, cartons, packaging materials and manufacturers' stocks of all kinds bought at fair prices for spot cash. We are buyers of merchandise of **EVERY DESCRIPTION**. Clearance Stocks. Discontinued lines. Surplus and Redundant Stocks. Should you have anything for disposal, please send us samples and particulars. Reliance Trading Co., 13 New College Parade, Finchley Road, N.W.3. C 153

MANUFACTURING CHEMISTS invite offers for following part or complete lots, 100 kilos acid citric, B.P., 40 kilos phthalysulphacetamide, B.P., 143 kilos dicalcium phosphate, 100 kilos magnesium hydrate, B.P. Samples on request to Box C 5630.

SHOP FITTINGS FOR SALE. Available November 4. Complete set polished mahogany, good condition, made by Josephs in 1926, window backs, wall-cases, dispensing screen, counter, two show cases, etc. Suit shop about 24 ft. x 16 ft. Transport and fitting can be arranged with shopfitters. £160. Woolatt, 30 High Street, Banstead, Surrey. Phone: Burgh Heath 720. C 4015

Victory - V**GUMS & LOZENGES for cold journeys**

FRYER & CO. (NELSON) LTD. NELSON, LANCs

N.99

**STOCK LINES OR SIDE LINES
OUR FREE STOCK LIST CAN HELP
YOU. SEND FOR THEM TODAY.**

L. FRANKENBURG, LTD. (SALES DEPT.),
Manufacturers, Wholesalers, Distillers,
37 HOUNDSITCH, LONDON, E.C.3.

C 269

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18/- per half inch (min.) and pro rata.
Box 2/-

B. NORMAN & SON, 2/5 Little Britain (close to G.P.O.), London, E.C.1, will sell by Auction on Wednesday, September 19, at 1.30 p.m., excellent light oak CHEMISTS' & DRUGGISTS' SHOP FITTINGS & SHOWCASES, Drug Runs, Nests of Drawers, Mirrors, Cash Tills, Display Stands, Office Desks, Typewriters, Steel Filing Cabinets, etc. On view day prior. Catalogues (3d. by post) on application.

C 5649

MISCELLANEOUS

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